

DOCUMENT RESUME

ED 255 725

CE 041 244

TITLE Vocational Instructor Teaching Skills Project. Evaluating Your Teaching Effectiveness. Resource Packet. [and] Computer-Based Education. Resource Packet.

INSTITUTION Mount Hood Community Coll., Gresham, Oreg.; Portland Community Coll., Oreg.; Umpqua Community Coll., Roseburg, OR.

SPONS AGENCY Oregon State Dept. of Education, Salem. Div. of Vocational Education.

PUB DATE [84]

NOTE 86p.

PUB TYPE Guides - Non-Classroom Use (055) -- Tests/Evaluation Instruments (160)

EDRS PRICE MF01/PC04 Plus Postage.

DESCRIPTORS Bibliographies; Community Colleges; Computer Assisted Instruction; *Computer Oriented Programs; Curriculum Development; *Educational Resources; Evaluation Criteria; Evaluation Methods; Faculty Development; *Inservice Teacher Education; Instructional Materials; Learning Modules; Material Development; Periodicals; *Self Evaluation (Individuals); Student Evaluation; *Teacher Effectiveness; *Teacher Evaluation; Teacher Improvement; Two Year Colleges; Videotape Recordings; Workshops

ABSTRACT

A project was conducted at Mt. Hood (Oregon) Community College to develop modules to upgrade the teaching skills of community college teachers. Two modules developed through this project, Evaluating Your Teaching Effectiveness and Computer-Based Education, are included in this document. The Evaluating Your Teaching Effectiveness packet consists of resource materials and evaluative tools to assist teachers in learning more about evaluating their effectiveness. (These materials supplement a videotape on teaching effectiveness.) Methods covered in the module range from a simple self-check list of teaching skills to a description of an in-depth teaching improvement process that uses several sources of feedback to determine teaching effectiveness and determine strategies for improvement. Materials in the packet are the following: (1) general overview of teaching evaluation, (2) effective teaching, (3) self-evaluation, (4) student evaluation, (5) small group instructional diagnosis, (6) peer evaluation, (7) teaching improvement process, and (8) bibliography. The Computer-Based Education (CBE) packet contains resource materials for further exploration of computer-based teaching. (The packet supplements the videotape of CBE and the first item in the packet is an evaluation form for the videotape.) Information in the packet includes the following: (1) a list of organizations concerned with CBE, (2) a list of educational magazines, (3) an annotated bibliography, (4) an offer of free Radio Shack courses in computers, and (5) an evaluation form concerning the resource materials. (KC)

ED255725

CR 8413504

VOCATIONAL INSTRUCTOR TEACHING SKILLS PROJECT
EVALUATING YOUR TEACHING EFFECTIVENESS

RESOURCE PACKET
(and)
COMPUTER-BASED EDUCATION

RESOURCE PACKET

Submitted to

Oregon Department of Education
Vocational Education Division

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

☒ This document has been reproduced as
received from the person or organization
originating it.

☐ Minor changes have been made to improve
reproduction quality.

☐ Points of view or opinions stated in this docu-
ment do not necessarily represent official ERIC
position or policy.

PERMISSION TO REPRODUCE THIS
MATERIAL HAS BEEN GRANTED BY

SCC

TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC).

Mt. Hood Community College
26000 S.E. Stark Street
Gresham, Oregon 97030
(HOST INSTITUTION)

And

Portland Community College
Umpqua Community College
(CONSORTIUM MEMBERS)

Contact Person:
Jim Rollins
Project Coordinator
Mt. Hood Community College
PH: (503) 667-7136

CR 041244

VOCATIONAL INSTRUCTOR TEACHING SKILLS PROJECT

EVALUATING YOUR TEACHING EFFECTIVENESS

RESOURCE PACKET

This packet consists of resource materials and evaluative tools to assist you in learning more about evaluating your effectiveness as a teacher. These materials supplement the videotape on teaching effectiveness. Please take time to view this videotape and complete the enclosed assessment form.

Methods covered in this training module range from a simple self-check list of teaching skills to a description of an in-depth Teaching Improvement Process which utilizes several sources of feedback to determine teaching effectiveness and determine strategies for improvement. We have tried to keep theory to a minimum and provide practical aids that you can use to gather feedback about your teaching effectiveness.

Materials in this packet are presented in the following sections:

- General overview of teaching evaluation; (white)
- Effective teaching - what is it?; (tan)
- Self evaluation; (yellow)
- Student evaluation; (blue)
- Small Group Instructional Diagnosis; (green)
- Peer evaluation; (pink)
- Teaching Improvement Process; (grey)
- Bibliography. (white)

We hope this training module will help you understand the importance of gathering feedback regarding your teaching effectiveness.

This training module was produced by the Vocational Instructor Teaching Skills Project, a consortium of Mt. Hood Community College, Portland Community College, Umpqua Community College, and the Oregon Department of Education. A similar training module, available on your campus, offers an orientation to Computer-Based Education.

If you have any questions or comments please contact:

Jim Rollins
Project Coordinator
Mt. Hood Community College
26000 S.E. Stark Street
Gresham, Oregon 97030
Telephone: (503) 667-7136

BEST COPY AVAILABLE

VOCATIONAL INSTRUCTOR TEACHING SKILLS PROJECT

VIDEOTAPE EVALUATION

1. TAPE TOPIC _____.
2. Did you experience any technical difficulties with the tape? Yes ___ No ___
If yes, please elaborate _____.
3. Was the videotape content helpful? Yes ___ No ___
_____.
4. Do you have any suggestions for improving the presentation? _____
_____.
5. Do you work with non-traditional role students (males in traditional female occupational areas or females in traditional male occupational areas)?
Yes ___ No ___
If yes, will the videotape materials help you in meeting this group's needs?
Yes ___ No ___ _____.
6. Do you work with handicapped and disadvantaged students? Yes ___ No ___
If yes, will the videotape materials help you in meeting this group's needs?
Yes ___ No ___ _____.
7. Comments: _____

_____.

BEST COPY AVAILABLE

VOCATIONAL INSTRUCTOR TEACHING SKILLS PROJECT

EVALUATING YOUR TEACHING EFFECTIVENESS

GENERAL OVERVIEW

Evaluation of teaching effectiveness can be divided into two major categories, according to use:

SUMMATIVE EVALUATION - a judgemental process to determine competence. Used for personnel decisions such as hiring, firing, tenure, etc.

FORMATIVE EVALUATION - an on-going feedback process concerned with professional development and self-improvement.

This training module examines the applications and methodologies of formative evaluation, specifically regarding instructional skills. Formative evaluation can and should be used by all instructors, from the inexperienced teacher who is discovering instructional techniques to the master teacher who is updating teaching skills. As members of a profession, teachers have an obligation to continual development of instructional skills in order to be aware of and practice current acceptable standards and techniques of the field.

Evaluation, in this context, is simply an objective and organized process of obtaining feedback to identify strengths and weaknesses so that the strengths may be accentuated and the areas of weakness improved.

The three major sources of information regarding a teacher's effectiveness are:

SELF:
STUDENTS:
PEERS.

The instruments and techniques presented in this packet are simply guidelines. Feel free to adapt these forms to fit your own needs or develop a new form using these materials as possible guidelines. With minor changes checklists or forms in one category (i.e. self evaluation) can easily be used in a different category (i.e. student evaluation).

EFFECTIVE TEACHING - WHAT IS IT?

Despite the long history of education, we still do not have a conclusive set of guidelines that allows us to differentiate between effective and ineffective teaching and teachers. There are no attributes that all effective teachers display and all ineffective teachers lack. The field of learning and instructional skills is still being developed. The complexity and variety of the teaching experience points to the very likely probability that no one best method of teaching exists. Differences in students' and teachers' abilities and motivation, subject matter, learning styles, and learning environments all play a role in determining what will and will not enhance learning.

This does not mean that education is chaotic. There are basic guidelines that do enjoy widespread acceptance.

The following materials list instructor competencies that you will want to consider in developing an approach to determining your effectiveness as a teacher and identifying your professional growth needs. These lists are neither comprehensive nor exhaustive. They are meant to serve as a beginning in the development of an objective determination of teaching effectiveness.

BEST COPY AVAILABLE

COMPETENCIES/SUPPORTING SKILLS OF THE "MASTER TEACHER"

MASTER TEACHER: The master teacher facilitates the discovery process by translating information, by evaluating the learner's skill development and problem-solving abilities, and by stimulating an interest in life-long learning.

ENTRY-LEVEL

PRE-REQUISITE:

COMPETENCIES

SUPPORTING SKILLS

Knowledge of
subject
matter

A. Possess and exhibit appropriate personal characteristics	A-1 Show/demonstrate initiative	A-2 Demonstrate self-confidence	A-3 Exhibit creativeness	A-4 Demonstrate enthusiasm	A-5 Demonstrate sense of humor
B. Exhibit professional behavior	B-1 Use evaluation data to identify professional growth needs	B-2 Set professional goals	B-3 Utilize networking opportunities	B-4 Participate in professional organizations and activities	B-5 Demonstrate willingness to learn and to adapt new ideas and techniques
C. Use the problem-solving process	C-1 Identify problem/opportunity	C-2 Seek out resources	C-3 Collect data	C-4 Interpret data	C-5 Use creativity to generate alternatives
D. Communicate effectively	D-1 Analyze your audience	D-2 Demonstrate credibility	D-3 Use active listener skills	D-4 Demonstrate positive non-verbal communication skills	D-5 Write clearly and effectively
E. Use interpersonal skills	E-1 Establish rapport with appropriate audiences	E-2 Build and maintain self-esteem of others	E-3 Seek out others' ideas	E-4 Support the right of other people to express their ideas	E-5 Negotiate and compromise issues
F. Plan/organize learning experiences	F-1 Select strategies to assess course/student needs	F-2 Use available data from needs assessments/evaluation reports	F-3 Analyze course for desired results (i.e., skills)	F-4 Establish objectives and criteria for evaluation	F-5 Identify the learning styles of students
G. Facilitate student learning	G-1 Maintain/foster open and mutually supportive environment	G-2 Demonstrate honesty through a personal awareness of limitations	G-3 Adapt material to audience	G-4 Involve students in learning experiences	G-5 Utilize questioning techniques
H. Evaluate student	H-1 Construct effective test items and instruments	H-2 Measure student performance against established objectives and criteria	H-3 Assess student participation in the learning process	H-4 Assess student progress across curricula	H-5 Provide students with opportunities for self and peer evaluation
I. Stimulate lifelong learning	I-1 Model the excitement for learning	I-2 Develop anticipation for the learning experience	I-3 Heighten students' expectation for learning	I-4 Help learners to see the inter-relationships of disciplines (interdisciplinary approach)	I-5 Help students establish their own process for planning, facilitating, and evaluating lifelong learning

A-6 Demonstrate tenacity	A-7 Practice self-discipline	A-8 Demonstrate fairness/impartiality	A-9 Exhibit intellectual curiosity	A-10 Be aware of and admit to personal limitation	A-11 Accept constructive criticism
B-6 Constantly revise professional goals	B-7 Foster the mission and goals of the institution	B-8 Maintain ethical standards			
C-6 Consider feelings and consequences (pros and cons)	C-7 Select an optimum solution	C-8 Delineate measures to test solution	C-9 Reach a conclusion	C-10 Communicate the results effectively	
D-6 Convey ideas	D-7 Give feedback	D-8 Stimulate discussion			
E-6 Resolve conflicts					
F-6 Set realistic goals	F-7 Establish time frame/schedule	F-8 Organize the course materials	F-9 Identify, select and use appropriate technology to present material	F-10 Structure classroom activities	
G-6 Read student body language	G-7 Manage creatively the range and backgrounds of learners	G-8 Generate excitement for learning	G-9 Develop and use a resource or storehouse of teaching techniques	G-10 Instill/maintain respect for the profession of teacher	
H-6 Validate and revise test items, instruments, and strategies	H-7 Give students feedback about their performance	PANEL MEMBERS: Geraldine Brown, Instructor of Psychology/Sociology, Copiah-Lincoln Junior College, Natchez, MS Claudia J. Floyd, Associate Professor of History and Political Science, Villa Julie College, Stevenson, MD Harold F. McCullough, Professor of Business, Chatfield College, St. Martin, OH Joseph H. Pyrell, Instructor in Industrial Maintenance and Machinist, Martin Community College, Williamston, NC Dean E. Schoen, Instructor of English-Reading and Study Skills, Bay de Noc Community College, Escanaba, MI Jim Wood, Science Department Head, Tri-County Technical College, Pendleton, SC			
I-6 Assist students to develop and apply their own organizing, analytical, and problem-solving skills		FACILITATED BY: Diana MacLeod, Staff Associate for Instruction/Information Services, ACCTion Consortium Tim Nolan, Consultant, Cincinnati, OH ORGANIZED AND COORDINATED BY: Carol McCombs, Staff Associate for Instruction, ACCTion Consortium			

EASTERN REGIONAL ACCTion CENTER, TRI-COUNTY TECHNICAL COLLEGE, P. O. BOX 587, PENDLETON, SC 29670

EFFECTIVE TEACHING CHARACTERISTICS

The following list of twenty teaching skills was developed by the Clinic to Improve University Teaching at the University of Massachusetts.

1. Establishing a Learning Set: clarifying, communicating, and arousing interest in learning objectives.
2. Evaluation: specifying criteria for the assessment of learning, designing, testing, and grading procedures which are consistent with course objectives, and providing adequate feedback to students about their progress.
3. Management: performing those organizational and administrative tasks which allow instruction to proceed smoothly.
4. Elaboration: clarifying or developing an idea.
5. Logical Organization: arranging and presenting course content and learning activities so that students understand the relationship between the various objectives, topics, issues, activities, etc. included in the course.
6. Responding to Questions: answering questions concisely and clearly.
7. Closure: providing for the integration of major points at the conclusion of class sessions or units of work in order to assist students in the synthesis of new material.
8. Pacing: adjusting the rate at which material is covered in order to maximize student comprehension.
9. Asking Questions: using different types of questions for a variety of instructional purposes; for example, to check for comprehension, to increase student participation, to assist students in developing critical thinking skills, etc.
10. Expression: using verbal (voice tone, inflection, pitch, emphasis) and nonverbal (facial expressions, gestures, body movement) behaviors to increase the power and meaning of his/her communications.
11. Student Participation: facilitating student involvement in class discussions both with the instructor and among themselves.
12. Interpersonal Relations: relating to students in ways which promote mutual respect.

13. Flexibility: recognizing and dealing with the differing interests and abilities among students both in and out of class.
14. Enthusiasm: conducting and directing learning activities in such a way as to stimulate interest in course content and activities.
15. Variety: selecting and using an appropriate variety of teaching methods and materials.
16. Creativity: combining materials and methods in new and unusual ways.
17. Level of Challenge: selecting and using course objectives, content, and activities which challenge students' abilities without being too difficult.
18. Learning Environment: creating and maintaining an atmosphere conducive to student involvement and achievement.
19. Relevancy: establishing a frame of reference for course materials and encouraging students in methods of intellectual inquiry.
20. Value Context: exploring value issues inherent in his/her selection, application, and/or interpretation of subject matter and assisting students in the exploration of their own values and the implications of those values for their personal and professional conduct.

SELF EVALUATION

Self evaluation is the logical starting point in determining teaching effectiveness. Instructional improvement will only occur if you perceive a need for improvement.

In effect, all formative evaluation is self evaluation because you take the feedback, whether it comes from student evaluation forms or comments from a colleague observing one of your classes, and determine how valid and valuable that information is for you. You decide whether or not to update your instructional skills based on this information.

In this section, you are provided aids for obtaining helpful feedback from yourself. You become the source of the feedback as well as the topic of the feedback.

The practicality of this approach is evident. You know better than anyone what your goals are and how you plan to attain them. You are in the class every period and can see the overall picture perhaps better than individual students can.

Less apparent at first glance are some of the pitfalls of self evaluation. Objectivity is difficult. There is a tendency to rationalize and become defensive. Being intricately involved with the teaching activity that you are attempting to evaluate, it is easy to develop a sense of reality that is different than that of the students or a colleague. You can miss many things that happen in the learning environment.

These problems often eliminate self evaluation as a source for summative evaluation. But the benefits of this method are helpful for formative evaluation. Self evaluation is an excellent first step toward professional growth and updating of instructional skills.

Self evaluation helps you to focus on certain aspects of your teaching, allowing you to question your reasoning for some practices and contemplate alternative approaches. Self evaluation helps you develop your perceptions of teaching .

The following self evaluation forms are representative of the multitude of evaluation forms available. The first form is a simple checklist. The second form uses essay questions to allow for a more comprehensive self examination of the issues. Section three of this form offers a comparison of your rating of yourself or the course, your estimate of how you think the students will rate the course, and finally, how the students actually do rate the course. Determining the reasons for significant discrepancies between your self rating and the students' rating can lead to insight and strategies for improvement.

SELF-APPRAISAL OF TEACHING

Teacher _____ Date _____

Term _____ Academic Year _____

Thoughtful self-evaluation can help improve teaching effectiveness. This questionnaire is designed for that purpose. You are asked to look at your own performance in teaching.

At your option, questions 11 and 12 may be added. Use the back of this form for any written comments you might want to express. These might record any unusual circumstances that relate to the courses and to your teaching them.

Directions:

Rate yourself on each item, giving the highest scores for unusually effective performances. Place in the blank space before each statement the number that most nearly expresses your view:

Highest			Average			Low- est	Not Appro- priate	Don't Know
7	6	5	4	3	2	1	X	O

Composite rating.

COUNCIL FOR THE ADVANCEMENT OF SMALL COLLEGES
INSTRUCTIONAL ASSESSMENT SYSTEM
SELF-EVALUATION

Course Number and Title: _____

SECTION I:

In assessing your own strengths as the teacher of this course, what do you identify as being the five activities that you most effectively perform:

- 1.
- 2.
- 3.
- 4.
- 5.

Which of these activities do you think are valued by the students taking this course? Which are not? Which of these activities are likely to be valued by your colleagues? Which are not?

FROM: Bergquist, W.H. and Phillips, S.W.
A Handbook for Faculty Development: Vol. I
Washington, D.C.: CASC. 1975.

What other activities would you like to be able to perform in an effective manner, that either you do not now perform, or perform in a mediocre manner?

1.

2.

3.

4.

5.

What steps would have to be taken for you to acquire the necessary skills or resources to perform these activities?

1.

2.

3.

4.

5.

In assessing your limitations as the teacher of this course, what do you identify as being the five activities that you least effectively perform?

1.

2.

3.

4.

5.

Which of these activities do you think are valued by the students taking this course? Which are not? Which of these activities are likely to be valued by your colleagues? Which are not?

What steps would have to be taken to acquire the necessary skills or resources to perform these activities more effectively?

1.

2.

3.

4.

5.

SECTION II:

Please indicate by using the following scale the extent to which you think each of the following types of learning should occur in this course.

- 1 = this should be a major learning goal in this course
- 2 = this should be a minor learning goal in this course
- 3 = this should be a peripheral learning goal in this course
- 4 = this should not be a learning goal in this course
- 5 = uncertain

-
- a) *Factual Knowledge*: new terms, methods, or information are acquired.
 - b) *Skills-Training*: students learn how to perform specific tasks or how to fill particular professional roles.
 - c) *Principles*: new theories, generalizations, and ways of organizing information are learned.

- d) *Application*: students learn how to use new information, concepts, and methods to solve current problems.
- e) *Creativity*: students learn how to be more expressive in the use of a specific medium (words, paint, music, and so forth) or how to approach and solve problems in a new way.
- f) *Appreciation*: greater sensitivity to specific intellectual, scientific, or artistic endeavors is learned.
- g) *Self-Understanding*: the student acquires a better sense of himself and/or his relationships with other people.
- h) *Self-Management*: the student learns how to plan more effectively for and/or control his own personal and professional life.

You may wish to compare your ratings on this section to the student responses to these items in Section V of Student Evaluation Form A.

SECTION III:

Following are four questions concerning the students' overall evaluation of this course. Please indicate for each item how you would rate yourself or the course, and how you think the students rated you or the course (estimate of average student rating).

1. What is your overall impression concerning the quality of this course, given your objectives and expectations about the course?

YOUR RATING:

- Outstanding
- Good
- Satisfactory
- Poor
- Uncertain

ESTIMATED AVERAGE STUDENT RATING:

- Outstanding (1)
- Good (2)
- Satisfactory (3)
- Poor (4)
- Uncertain

Actual Average Student Rating (to be filled in after the estimate has been made):

2. How would you compare the overall quality of this course with that of other courses of a similar nature at this college?

YOUR RATING:

- One of the very best (Upper 10%)
- Above Average (Upper 10-30%)
- Average (40-60%)
- Below Average (Below 40%)
- Uncertain

ESTIMATED AVERAGE STUDENT RATING:

- One of the very best (1) (Upper 10%)
- Above Average (2) (Upper 10-30%)
- Average (3) (40-60%)
- Below Average (4) (Below 40%)
- Uncertain

Actual Average Student Rating (to be filled in after the estimate is made):

3. Compared to other courses of a similar nature at this college, how would you rate the overall level of difficulty in this course?

YOUR RATING:

- Very difficult
- Somewhat difficult
- Average
- Somewhat easy
- Very easy
- Uncertain

ESTIMATED AVERAGE STUDENT RATING:

- Very difficult (1)
- Somewhat difficult (2)
- Average (3)
- Somewhat easy (4)
- Very easy (5)
- Uncertain

Actual Average Student Rating (to be filled in after the estimate is made):

4. In comparison with other courses of a similar nature that are offered at this college, how would you rate the level of learning in this course?

YOUR RATING:

- A great deal more was learned than usual.
- More was learned than usual.
- The usual amount was learned.
- Less was learned than usual.
- Considerably less was learned than usual.
- Uncertain

ESTIMATED AVERAGE STUDENT RATING:

- "I learned a great deal more than I usually do." (1)
- "I learned more than I usually do." (2)
- "I learned about as much as I usually do." (3)
- "I learned less than I usually do." (4)
- "I learned considerably less than I usually do." (5)
- Uncertain

Actual Average Student Rating (to be filled in after the estimate is made):

Note the basic reasons for any significant discrepancies between your ratings, your estimated student ratings, and the actual student ratings. If possible, share these reasons with your colleagues and/or students, so that they might be validated, clarified, or expanded.

STUDENT EVALUATION

Student evaluation enjoys fairly widespread acceptance as a valuable source of feedback regarding teaching effectiveness.

Students are capable of making consistent and accurate assessments about their instructors and instruction. Arguments that students are immature, easily impressed by showmanship, and influenced by the grades they expect to receive have little support in current educational research findings. The student is a consumer who has a vested interest in the improvement of faculty instructional skills.

Feedback from students can be collected by a variety of methods. Student questions, body language, level of participation, and test results all offer the instructor some information about her/his effectiveness.

Student Achievement is sometimes held up as the only true indicator of teaching effectiveness. Instructional skills, organization, management, and student-teacher relationships are only the process of teaching. The bottom line or final product is what the student achieves and that's what really matters. While this approach is admirably objective in theory, the problems in application are numerous. Students' previous knowledge of the subject, the complexity of subject content, students' abilities and motivations to learn, and availability of an instrument to accurately and fairly measure student achievement are all variables that make student achievement a difficult method of evaluating teaching effectiveness. And many times the results of student achievement offer little or no guidelines for developing strategies to improve teaching competencies.

Typically, student evaluation data is gathered by means of a questionnaire. We have included two examples of student questionnaire forms and an example of a menu method whereby instructors can build their own specific student forms.

The Small Group Instructional Diagnosis (SGID) process, yet another technique for collecting student feedback, is examined in the green section of this packet.

STUDENT EVALUATION
OF CLASSROOM INSTRUCTION

Course _____
Instructor _____
Time _____ Term _____ 19 _____

Student Evaluation of Classroom Instruction
Page 2

D.

1. Comment on any positive and/or negative characteristics of the instruction in this class.

2. Write any other comments you wish to make.

A. Please circle

	(high)				(low)
1. Organization of course	5	4	3	2	1
2. Knowledge of subject matter	5	4	3	2	1
3. Attitude toward subject	5	4	3	2	1
4. Ability to explain clearly	5	4	3	2	1
5. Ability to stimulate thinking and learning	5	4	3	2	1
6. Speaking ability, voice	5	4	3	2	1
7. Attitude toward students, understanding, helpfulness	5	4	3	2	1
8. Fairness of grading	5	4	3	2	1
9. Tolerance of disagreement	5	4	3	2	1
10. Willingness and availability to assist students outside of class	5	4	3	2	1
B. How would you rate this instructor?	5	4	3	2	1
C. Overall, how would you rate the difficulty of this class					
Unreasonably hard	☐				
Demanding	☐				
Reasonable	☐				
Easy	☐				
Far too easy	☐				

- E. I had enough time to complete this questionnaire to my satisfaction.

Yes ☐

No ☐

BEST COPY AVAILABLE

DETAILED RATING OF THE TEACHING-LEARNING

Directions:

The traits of EXCELLENT TEACHING-LEARNING are printed in the middle of these pages. Please rate the teaching-learning on each trait by checking one of the five spaces accompanying each trait, that range from Excellent (Exc.) to Poor: 1 - 2 - 3 - 4 - 5.

If in addition you feel that any particular trait mentioned in the summary in the middle needs improvement, please underline it. Otherwise, use only circles.

If you feel that you have no basis for judgment on an item, you may omit it.

Value to Student (Circle One)

Exc. Poor
1 2 3 4 5

Instructor Rating (Circle One)

Exc. Poor
1 2 3 4 5

Friendliness

We work in a general air of friendliness

1 2 3 4 5

Helpfulness

We supplement our classroom teaching by adequate outside conferences

1 2 3 4 5

Interest in Individual

Each of us has a place in the group and receives recognition from the instructor

1 2 3 4 5

1 2 3 4 5

Enthusiasm

The classroom atmosphere of enthusiasm stimulates our interest

1 2 3 4 5

1 2 3 4 5

Respect

In this class we enjoy a high degree of student-instructor mutual respect

1 2 3 4 5

1 2 3 4 5

Intellectual Honesty

We are impressed by the instructor's willingness to admit his own shortcomings

1 2 3 4 5

1 2 3 4 5

Humor

Humor in the classroom tends to promote more effective learning

1 2 3 4 5

1 2 3 4 5

Speech

Clear and commanding speaking by everyone aids our learning

1 2 3 4 5

1 2 3 4 5

2

Exc. 1 2 3 4 5 Poor

Freedom From Annoyances

Freedom from annoyances in the classroom contributes to the effectiveness of our learning

1 2 3 4 5

Promptness

The promptness and efficiency of our instructor increases the value of our class

1 2 3 4 5

Appearance

The general appearance and demeanor of our instructor are appropriate

1 2 3 4 5

Purpose

The purpose of the course is clear to the students

1 2 3 4 5

Standards

Standards of work are definite and adequate for effective learning

1 2 3 4 5

Preparation

The instructor's day by day preparation is adequate

1 2 3 4 5

Organization

Classroom activities are orderly and systematic

1 2 3 4 5

Assignments

Assignments are clear and challenging

1 2 3 4 5

Teaching Methods

Teaching methods are adapted to the learning needs of the students

1 2 3 4 5

Student Participation

Students participate actively in class procedures

1 2 3 4 5

Adaptation

The levels of classroom activities are adapted to differences in student capacities

1 2 3 4 5

Supplementary Materials

Outlines, syllabi, summaries, and other supplementary materials contribute to student learning

Exc. 1 2 3 4 5 Poor

1 2 3 4 5

1 2 3 4 5

1 2 3 4 5

1 2 3 4 5

1 2 3 4 5

1 2 3 4 5

1 2 3 4 5

1 2 3 4 5

1 2 3 4 5

1 2 3 4 5

1 2 3 4 5

Exc. Poor
1 2 3 4 5

Teaching Aids

The use of charts, films, slides, models, bulletins and blackboards contributes to the student's learning

1 2 3 4 5

Review

Sufficient time is provided for review

1 2 3 4 5

Fairness of Tests

Fair tests have helped our learning

1 2 3 4 5

Return of Papers

Tests and papers are returned promptly

1 2 3 4 5

Standing

We are regularly informed of our progress

1 2 3 4 5

Relation to Life

This course is related to daily life

Exc. Poor
1 2 3 4 5

1 2 3 4 5

1 2 3 4 5

1 2 3 4 5

1 2 3 4 5

1 2 3 4 5

GENERAL RATING OF THE TEACHING-LEARNING

Having rated the teaching-learning of the many points included in the detailed rating, will you now give your overall rating by checking one of the spaces following:

EXCELLENT
(1)

GOOD
(2)

AVERAGE
(3)

FAIR
(4)

POOR
(5)

Instructor Designed Evaluation System

The Instructor Designed Evaluation System (I.D.E.S.) is a system for building student evaluation of instruction instruments. From a list of over 200 evaluative items, each instructor may select those that fit his/her needs. Each instructor is able, therefore, to match the characteristics of his/her course - its forms, content, style, and goals - to the statements by which the course is then evaluated.

I.D.E.S. is designed to assist with instructional improvement efforts, and the items constructed to evaluate one or more of the following aspects of teaching:

1. Clarity and Effectiveness of Presentation
2. Student Interest/Involvement in Learning
3. Broadening Student Outlook
4. Teaching/Learning of Relationships and Concepts
5. Instructor Provides Help as Needed
6. Providing Feedback to Students
7. Adapting to Individual Differences
8. Respect and Rapport
9. Course Goals or Objectives
10. Usefulness/Relevance of Content
11. Discussion
12. Exams and Grades
13. Assignments
14. Media: Films, TV, etc.
15. Team Teaching
16. General Method
17. Laboratory
18. General Student Perceptions
19. Additional Aspects
20. Overall Judgement
21. Learning Packets

Directions: Consult the menu of evaluative items which follows and choose at least 20 items but no more than 40 items for your student evaluation form. You may want to include additional items not found in the menu or change the readability of existing items.

Following the menu is an example of an instrument derived from the IDES process.

FROM: Gordon Watts
Westark Community College
Ft. Smith, Arkansas

Instructor Designed Evaluation System

ITEM SELECTION FORM

Instructor's Name _____

Course Title _____

(01) Clarity and Effectiveness of Presentations

001 002 003 004 005 006 007 008 009 010 011 012

(02) Student Interest/Involvement in Learning

013 014 015 016 017 018 019 020 021 022 023 024

(03) Broadening Student Outlook

025 026 027 028 029 030 031 032 033 034 035

(04) Teaching/Learning of Relationships and Concepts

036 037 038 039 040 041 042 043

(05) Instructor Provides Help as Needed

044 045 046 047 048 049 050 051

(06) Provide Feedback to Students

052 053 054 055 056 057

(07) Adapting to Individual Differences

058 059 060 061 062 063 064 065

(08) Respect and Rapport

066 067 068 069 070 071 072 073 074 075 076 077 078 079
125

(09) Course Goals or Objectives

080 081 082 083 084 085 086 087 203

(10) Usefulness/Relevance of Content

088 089 090 091 092 093 094 095 096 097 098 099 100 101
102

(11) Discussion

103 104 105 106 107 108 109 110

(12) Tests, Exams, and Grades

111 112 113 114 115 116 117 118 119 120 121 122 123 124
126 127 212 213 214 215 216 217 218 219 220 221

(13) Assignments

128 129 130 131 132 133 134 135 136 137 138 139 140 141
142 143 144 204 205 206 207 208 209 210 211

(14) Media: Films, TV, Etc.

145 146 147 148 149 150 151 152 153 154 234 235 236 237
238

(15) Team Teaching

155 156 157 158

(16) General Method

159 160 161 162 163 164 165 166 167 168 169 170

(17) Laboratory

171 172 173 174 175 176 177 178 179

(18) General Student Perceptions

180 181 182 183 184 185 186 187 188 189 190 191

(19) Additional Items

192 193 194 195 196 197 198 199 200 201 202 203

(20) Overall Judgement

192 193 194 195 196

(21) The Learning Packet

222 223 224 225 226 227 228 229 230 231 232

1. I understand easily what my instructor is saying.
2. My instructor displays a clear understanding of course topics.
3. My instructor is able to simplify difficult materials.
4. My instructor explains experiments and/or assignments clearly.
5. Difficult topics are structured in easily understood ways.
6. My instructor has an effective style of presentation.
7. My instructor seems well-prepared for class.
8. My instructor talks at a pace suitable for maximum comprehension.
9. My instructor speaks audibly and clearly.
10. My instructor draws and explains diagrams effectively.
11. My instructor writes legibly on the blackboard.
12. My instructor has no distracting peculiarities.
13. My instructor makes learning easy and interesting.
14. My instructor holds the attention of the class.
15. My instructor senses when students are bored.
16. My instructor stimulates interest in the course.
17. My instructor displays enthusiasm when teaching.
18. This course supplies me with an effective range of challenge.
19. In this course, many methods are used to involve me in learning.
20. My instructor makes me feel involved with this course.
21. In this course, I always felt challenged and motivated to learn.
22. My instructor motivates me to do further independent study.
23. This course motivates me to take additional related courses.
24. This course has been intellectually fulfilling for me.
25. My instructor has stimulated my thinking.
26. My instructor has provided many challenging new viewpoints.
27. My instructor teaches one to value the viewpoint of others.

28. This course caused me to reconsider many of my former attitudes.
29. In this course, I have learned to value new viewpoints.
30. This course fosters respect for new points of view.
31. This course stretched and broadened my views greatly.
32. This course has effectively challenged me to think.
33. The class meetings helped me to see other points of view.
34. This course develops the creative ability of students.
35. My instructor encourages student creativity.
36. My instructor emphasizes relationships between and among topics.
37. My instructor helps me apply theory to solve problems.
38. My instructor emphasizes conceptual understanding of materials.
39. My instructor effectively blends facts with theory.
40. My instructor clarifies topics with developments in other fields.
41. My instructor makes good use of examples and illustrations.
42. Relationships among course topics are clearly explained.
43. This course builds understanding of concepts and principles.
44. My instructor is actively helpful when students have problems.
45. My instructor recognizes when some students fail to comprehend.
46. Everything possible is provided to help me learn.
47. My instructors explanations and comments are always helpful.
48. My instructor evaluates often and provides help where needed.
49. My instructor appears to grasp quickly what a student is saying.
50. My instructor is careful and precise when answering questions.
51. My instructor is readily available for consultation.
52. My instructor regularly checks and rewards progress in learning.
53. My instructor suggests specific ways I can improve.
54. My instructor recognizes and rewards success in this course.

55. My instructor can gauge what I know and what I should do next.
56. Exams are used to help me find my strengths and weaknesses.
57. My instructor returns papers quickly enough to benefit me.
58. This course shows a sensitivity to individual interests/abilities.
59. My instructor adjusts to fit individual abilities and interests.
60. The flexibility of this course helps all kinds of students learn.
61. My instructor tailors this course to help many kinds of students.
62. The design of this course lets me learn at my own pace.
63. Students proceed at their own pace in this course.
64. I was able to keep up with the work load in this course.
65. My background is sufficient to enable me to use course material.
66. A teacher/student partnership in learning is encouraged.
67. Each student is encouraged to contribute to class learning.
68. I am free to express and explain my own view in class.
69. When I have a question or comment I know it will be respected.
70. I feel free to ask questions in class.
71. Mutual respect is a concept practiced in this course.
72. My instructor respects divergent viewpoints.
73. My instructor respects constructive criticism.
74. I feel free to challenge my instructors ideas in class.
75. My instructor relates to me as an individual.
76. My instructor deals fairly and impartially with me.
77. My instructor really maintains rapport with this class.
78. This instructor encourages divergent thinking.
79. The climate of this class is conducive to learning.
80. This course has clearly stated objectives.
81. The objectives of this course were clearly explained to me.

82. The stated goals of this course are consistently pursued.
83. I understand what is expected of me in this course.
84. The course objectives allow me to know when I am making progress.
85. I was able to set and achieve some of my own goals.
86. I had an opportunity to help determine course objectives.
87. The course content is consistent with my prior expectations.
88. This course material is pertinent to my professional training.
89. This course contributes significantly to my professional growth.
90. I can apply information/skills learned in this course.
91. This course will be of practical benefit to me as a student.
92. My technical skills were improved as a result of this course.
93. This course directly contributes to my vocational preparation.
94. This course is a valid requirement for my major.
95. The relationship of this course to my education is apparent.
96. This relationship of this course to my education is apparent.
97. This course gives me an excellent background for further study.
98. This course is up-to-date with developments in the field.
99. This course includes adequate information on career opportunity.
100. This course includes a sufficient number of practical exercises.
101. The content of this course is relevant to my needs.
102. The amount of material covered was reasonable.
103. My instructor develops classroom discussion skillfully.
104. There is sufficient time in class for questions and discussions.
105. My instructor allows student discussion to proceed uninterrupted.
106. My instructor encourages students to debate conflicting views.
107. My instructor does not monopolize classroom discussion.
108. One real strength of this course is the classroom discussion.

109. Challenging questions are raised for discussion.
110. This course provides an opportunity to learn from other students.
111. Exams accurately assess what I have learned in this course.
112. Exams are fair.
113. Exams are free from ambiguity.
114. Exams cover a reasonable amount of material.
115. Exams stress important points of the lectures/text.
116. Exams in this course have instructional value.
117. Exams are creative and require original thought.
118. I know how I stand relative to others in the class on exams.
119. Exams are reasonable in length and difficulty.
120. Exams are coordinated with major course objectives.
121. My final grade will accurately reflect my overall performance.
122. Grades are an accurate assessment of my knowledge in this course.
123. Grades are assigned fairly and impartially.
124. The grading system was clearly explained.
125. I feel that I am an important member of this class.
126. The contract grading method is used appropriately in this course.
127. My instructor has a realistic definition of good performance.
128. The assigned readings significantly contribute to this course.
129. The assigned reading is well integrated into this course.
130. Length and difficulty of assigned readings are reasonable.
131. Assigned readings are interesting and hold my attention.
132. Assignments are of definite instructional value.
133. Assignments are related to goals of this course.
134. Complexity and length of course assignments are reasonable.
135. Directions for course assignments are clear and specific.

136. The number of course assignments is reasonable.
137. Class projects are related to course goals and objectives.
138. The course's programmed learning materials are effective.
139. The group work contributes significantly to this course.
140. Student presentations significantly contribute to this course .
141. Student presentations in class are interesting/stimulating.
142. I am generally pleased with the text (s) required for this course.
143. I find the course emphasis on individual projects stimulating.
144. My instructor is not overly demanding of my time.
145. This course has made excellent use of TV.
146. The televised portions of class are a great help to learning.
147. TV reception was of good quality.
148. Audio reception (TV, recorder, etc.) was of good quality.
149. The use of television made the course very interesting.
150. Media (Films, TV, etc.) used in this course are well chosen.
151. Media (Films, TV, etc.) are an asset to this course.
152. Films in this course contributed significantly to my learning.
153. This course has made excellent use of films.
154. Films in class were well-integrated with course topics.
155. Team teaching is effectively used in this course.
156. Instruction is well-coordinated among the team teachers.
157. Team teaching provided insights a single instructor could not.
158. The team teaching approach adequately meets my needs/interests.
159. Course topics are dealt with in sufficient depth.
160. Teaching methods used in this course are well chosen.
161. The format of this course is appropriate to course purposes.
162. The teaching strategy used in this course is appropriate.

163. This course is accurately described in the catalog.
164. Lecture information is adequately supplemented by other work.
165. Class lectures contain information not covered in the textbook.
166. Bibliographies for this course are current and extensive.
167. Mimeographed handouts are valuable supplements to this course.
168. The guest speakers contribute significantly to this course.
169. The speakers who addressed us communicated effectively.
170. An appropriate number of outside lecturers are used.
171. Lab procedures are clearly explained to me.
172. My instructor thoroughly understand lab experiments/equipment.
173. Assistance is always available throughout lab sessions.
174. The lab sessions are well-organized.
175. The content of the lab is a worthwhile part of this course.
176. Lab assignments are reasonable in length and complexity.
177. Lab assignments have instructional value.
178. The lab in this course has adequate facilities.
179. My lab assignments are promptly returned to me.
180. The class mixture of freshmen and sophomores is appropriate.
181. The size of this class is appropriate to course objectives.
182. The facilities for this course are excellent.
183. I have easy access to equipment/tools required in this course.
184. I had sufficient opportunity to use lab/practice room facilities.
185. The lab/practice room is well equipped.
186. I highly recommend this course.
187. I would enjoy taking another course from this instructor.
188. I like the way the instructor conducts this course.
189. Frequent attendance in this class is essential to good learning.

215. The tests are free from ambiguity.
216. The tests cover a reasonable amount of material.
217. The tests stress important points of the lecture/text/packet.
218. Tests in this course have instructional value.
219. Tests are reasonable in length and difficulty.
220. Tests are coordinated with course objectives.
221. Tests are used to help me meet the objectives.
222. The learning packet (s) explain assignments clearly.
223. The learning packet helps me apply theory to solve problems.
224. The learning packet effectively blends examples with the information being presented.
225. The learning packet makes good use of examples.
226. The learning packet builds understanding of concepts and principles.
227. I understand what is expected of me in this course.
228. The packet objectives allow me to know when I am making progress.
229. The packet helps me to improve my mathematical skills.

FACULTY EVALUATION INSTRUMENT

BEST COPY AVAILABLE

Circle the appropriate number following each statement based on your assessment of the instructor in this course.

SA = (1) strongly agree
A = (2) agree
U = (3) undecided

D = (4) disagree
SD = (5) strongly disagree

	SA	A	U	D	SD
1. My instructor displays a clear understanding of course topics.	1	2	3	4	5
2. My instructor is able to simplify difficult materials.	1	2	3	4	5
3. My instructor seems well-prepared for class.	1	2	3	4	5
4. My instructor has no distracting peculiarities.	1	2	3	4	5
5. My instructor holds the attention of the class.	1	2	3	4	5
6. My instructor displays enthusiasm when teaching.	1	2	3	4	5
7. This course supplies me with an effective range of challenge.	1	2	3	4	5
8. My instructor makes me feel involved with this course.	1	2	3	4	5
9. This course has effectively challenged me to think.	1	2	3	4	5
10. This course develops the creative ability of students.	1	2	3	4	5
11. My instructor helps me apply theory to solve problems.	1	2	3	4	5
12. My instructor makes good use of examples and illustrations.	1	2	3	4	5
13. My instructor is actively helpful when students have problems.	1	2	3	4	5
14. My instructor appears to grasp quickly what a student is saying.	1	2	3	4	5
15. My instructor regularly checks and rewards progress in learning.	1	2	3	4	5
16. My background is sufficient to enable me to use course material.	1	2	3	4	5
17. When I have a question or comment, I know it will be respected.	1	2	3	4	5
18. My instructor deals fairly and impartially with me.	1	2	3	4	5
19. The climate of this class is conducive to learning.	1	2	3	4	5
20. I understand what is expected of me in this course.	1	2	3	4	5
21. My technical skills were improved as a result of this course.	1	2	3	4	5
22. The amount of material covered was reasonable.	1	2	3	4	5
23. There is sufficient time in class for questions and discussions.	1	2	3	4	5

SMALL GROUP INSTRUCTIONAL DIAGNOSIS

WHAT IS SGID

Small Group Instructional Diagnosis (SGID) is a method that uses small group discussion among students to provide feedback to an instructor in order to improve teaching, provide suggestions for strengthening the course, and generally increasing communications between the students and teacher.

HOW IT WORKS

1. Initial instructor contact with facilitator to arrange times, places, and answer questions.
2. Classroom visit by facilitator
 - a. Explain process and benefits to class.
 - b. Divide class into groups of 4 - 7.
 - c. Ask them to discuss likes, improvement needs, and suggestions for course changes for 20 minutes.
 - d. Synthesize class results and summarize
3. Instructor feedback session where facilitator explains results
4. Instructor reviews results with class and discusses which changes can be made

BENEFITS

- * Changes can be made in a course before too late to help students
- * Opens communication between students and teacher
- * Clears up misconceptions about course
- * Helps explain methods and reasoning used in course
- * Builds faculty sharing and support relationships

TYPICAL FACULTY COMMENTS ABOUT SGID

- * This process provides clear and concrete suggestions that I can implement.
- * The feedback is immediate which makes both teacher and students deal with ideas pertinent now.
- * It helps to get me to know other faculty on campus and see another area of instruction other than my own.
- * It's an easy process to learn.

FROM: Chemeketa Community College
Salem, Oregon

THE SGID FACILITATOR'S ROLE

This outline of the SGID facilitator's role offers a clear description of how the SGID works. Two major attributes of SGID are its simplicity and flexibility. The facilitator's role is not difficult and can be easily learned. At several Community Colleges instructors wishing to undergo SGID a second or subsequent time are strongly encouraged to also serve as a facilitator for one other class. The time required is minimal and instructors acting as facilitators are enthusiastic about the benefits they derive from the experience.

PREPARATION

Before the SGID session with the students, you should meet with the course instructor to clarify the instructor's expectations and to establish meeting details. Information you will need to know includes:

- 1) Course meeting place;
- 2) Date and time of SGID session;
- 3) Number of students in class;
- 4) Facilities for recording feedback (chalkboard or overhead).

Establishing the time the SGID will begin can be very important. Instructors often like to lecture for the first part of a class session and allow for the SGID session at the end of class. In doing so, they sometimes run overtime or don't anticipate student questions at the end of their lecture; they thus encroach on time you need for the discussion. Classes of 20 or 30 students will need twenty minutes, but larger classes require twenty-five to thirty minutes. Be sure to clarify this with the instructor.

It will also help if you discuss with the instructor the course objectives, strengths, areas of concern, and any other information regarding the class that the instructor thinks might be useful. While you don't need to know anything about the course content or structure to facilitate the SGID method, you will spend less time asking for clarification of students' comments if you familiarize yourself with the course issues beforehand.

AT THE SGID STUDENT SESSION

The most important thought to remember is to keep the process moving at a brisk pace. You have only a limited amount of time, and you want to give students the maximum of time to think about the course. Proceed directly into the process. Although some may choose to leave the classroom you can gently encourage full participation by shutting the classroom door behind you when you come in (this should be done for confidentiality also), by positioning yourself near the door while giving the instructions, if that seems natural, and/or by stating that it is to their benefit to remain.

I generally use a brief introduction that goes something like this:
"My name is _____, and your instructor has asked me to come in today to help him/her collect some information about how this course is going. This method is different from the evaluation questionnaires you usually fill out at the end of the term because you don't have to write anything and you can be specific about the things you like or are uncomfortable with. In fact, the more specific you are, the more useful your feedback will be to your instructor. I'll be getting together with your instructor to feedback the information and suggestions that you generate. This is a chance for you to possibly change the way the course goes for the remainder of the quarter.

I'll run through what I want you to do and then we'll begin.
First, divide into groups of about five or six.
Next, choose a spokesperson for each group who will be responsible for keeping notes.
Then discuss these three questions in your groups (write the key words on the board):

- | | |
|---|--------------------|
| 1. What do you like about this course? | LIKE |
| 2. What do you think needs improvement? | <u>IMPROVEMENT</u> |
| 3. What specific suggestions do you have for changing the course? | <u>SUGGESTIONS</u> |

Take 5 to 7 minutes to discuss these, and reach a decision about your group's most important responses to each of these questions. Then we'll come together as a class and share the ideas."

At this point you might begin moving up the aisles and facilitate the forming of groups, pointing out some natural groupings. During the discussions remain available to answer questions and assist groups in reaching decisions. You might wish to announce how much time is remaining and what questions they should be on. As the group discussion time draws to a close or the groups seem "talked out", announce that they have another minute to "wrap up". This will provide a structured close time that won't interfere with the group reporting.

To save time (and confusion, if another class uses the room in the next period), you should elicit one or two students to record on paper for you everything you write on the board. You should check their notes with your postings before you erase the board.

Have a spokesperson report one of their group responses, then move on to another group, asking for an additional item. Record responses on the board. You should get about six to ten different items, repeating the rounds if needed. Try to use their exact words and phrases, asking for clarification where necessary. Remember that it is not necessary for you to understand all of the suggestions (especially technical or subject specific comments), as long as you confirm that the instructor will understand it. If the students make a general comment (i.e., "We don't like the book") try to help them identify specifics about their likes or dislikes ("What don't you like about the book?" or "What would make it better?"). Once again, quick pacing keeps the momentum and saves you needed time. When there is apparent disagreement with a stated response (i.e., some groans), seek a show of hands for agreement/disagreement. Estimate percentages to save time. Make sure you leave sufficient time for the last item - Suggestions - since it provides critical information for the instructor.

After all groups have reported, and if there is time remaining, you may finish the evaluation process by one or more of the following:

- offer a quick, general summary and check if the class agrees.
- Ask for a show of hands on each comment to sample class consensus.
- Ask for disagreement or other reactions to the listed suggestions.
- Ask for individual comments not offered by the groups.
- Ask the class to address any issues identified to you by the instructor that the students did not address in their feedback.
- Repeat what the next steps in the process will be.

When you have covered the above topics, or more likely, run out of time, collect the student suggestions and remove the information from the board or overhead to ensure confidentiality.

INSTRUCTOR FEEDBACK SESSION

Review of Classroom Procedure: Some instructors are not familiar with the SGID process, and a brief description of the process you followed with the class will help them to understand and evaluate the data. You should also share some descriptive data, such as whether any students left or didn't participate (reassure the instructor that this is not an uncommon occurrence), and any other important observations you might have made during the group discussion.

Review of Data: Share with the instructor verbatim responses of the student groups. Provide clarification where necessary. Most instructors tend to equate evaluations with telling them what they're doing wrong. Ideally, however, the evaluation should help them to focus on their strengths also. You can aid them to do this by identifying and emphasizing these strengths and suggesting ways in which they might be maximized. This might be done by presenting the student "likes" first, to give them emphasis, and by underscoring the responses that seemed to be most important to the students. You can also help to put issues in perspective by adding any additional information or observations from the clarification and discussion that followed the student suggestions.

Summary and Analysis: Help the instructor to identify major themes and issues of the student data. Your experience as an instructor will allow you to provide insight and interpretations as to the possible motivations and underlying issues that the students raised. You can also help the instructor to keep perspective and recognize that student viewpoints are not the only important perception of the teaching process. The instructor may feel some defensiveness, and your empathy and identification with experiences from your background should allay some of this feeling.

Plan for Response: Instructors usually appreciate the feedback they receive, but often lack a structure to translate this data into a plan of action. This situation is especially in need of clarification with the SGID feedback. Not only is it specific, and therefore more readily applicable, but the SGID structure also generates greater student expectation that the process will result in course changes. Therefore, you should encourage instructors to identify areas for improvement and formulate response plans immediately.

The response plan might take many forms, but should include four basic elements. First there should be an overt acknowledgment of the evaluation to the students. This may take the form of a simple thank you, a summary statement of the evaluation data, or a request for clarification on points of confusion. A summary is recommended which will inform the students that the instructor has indeed heard their message. This will also give them an opportunity to correct any misconceptions the instructor might have regarding the data.

Some instructors use this opportunity to creatively involve students in the improvement process. One instructor used the evaluation data as a focus for weekly luncheon discussions with students. Another generated student committees to help clarify suggestions and develop change efforts based on the student evaluation. Still another instructor printed responses to the student suggestions (caution: this was interpreted by some students as providing a cover for inaction).

The second element of response to a student evaluation is to formulate and act on a plan aimed at implementing desired changes. Resources to aid in this process may be available on campus, including library sources, experts on instructional design, learning, teaching, communications, and group dynamics, counseling, and colleagues who may offer alternative perspectives and useful suggestions.

Some instructors will look to you for guidance in designing a change plan. You might work with the instructor to draw up a change contract.

You may want to help the instructor identify and define goals. One effective technique is for the instructor to write a statement of goals and justifications. This will help clarify objectives and elaborate steps to be taken in accomplishing them. For example, an instructor might write the following self-contract: "I will spend one hour per day for the remainder of the quarter on lecture organization." The instructor might give you or another friend copies of the contract to mail to her/him at regular intervals, as a reminder.

Certain suggestions may be offered by the students that the instructor may not wish to follow. This is certainly acceptable, however it is important for the instructor to explore the reasons. You should be sensitive to non-compliance due to defensive reactions. The instructor should be encouraged to include explanations of why certain suggested changes are not going to be implemented in the follow-up review with the class.

Making students aware of change efforts is the third element of response, and is almost as important as making the changes. Sometimes the best efforts of instructors go unnoticed and unreinforced by students. Lack of recognition might discourage an instructor from carrying through with changes, and could lead to feelings of disappointment for both instructor and students. Therefore, you should suggest that the instructor include in the change plan some way of informing students of intended objectives and actions.

Finally, the instructor will need to determine how effective the change plan has been. Hence, the fourth element of designing a response plan is to establish an assessment of the effectiveness of the changes. This might be done through a standard student questionnaire or a second small group evaluation. These methods involve more class time and may not provide specific feedback about the identified areas of change, however. Therefore, other methods are suggested.

- a. Questionnaire that addresses specific areas for improvement.
- b. Self-review (possibly could employ videotape feedback).
- c. Review with you or another colleague at a later date to evaluate progress.
- d. Hand vote or ballot by students to determine if they believe progress has been made in identified problem areas.
- e. Class observation to evaluate extent of changes.
- f. Informal student interviews.

When arranging for some review process with the instructor, the method of review is not as important as the timing. Encourage the establishment of a specific time of review, and assist the instructor to determine whether sufficient time to incorporate the planned changes has been allowed.

SAMPLE FEEDBACK SHEET

Items marked with an asterisk (*) were mentioned by more than one group of students. Whenever an item was mentioned that seemed to create some disagreement, a show of hands was taken and the resulting estimated percentages are indicated after the statement. Where there are no percentages, the class seemed in general agreement.

What do you like about the course?

Well organized

- *Subject matter is interesting
- *Professor is competent and knowledgeable in several areas, combines knowledge from several areas
- *Use of audio-visual aids, especially slides and graphics
- *Professor is open to questions, answers questions completely
- *Several comments to the effect that the professor is concerned about quality of teaching, conscientious, approachable, a five-star prof
- *Use of student participation in lecture

What areas do you feel need improvement?

More biochemistry required as prerequisite 70/30

- *More tests or quizzes
- *More slides, graphics
- *Write larger, more clearly on overhead
- Too many questions during class that take off on tangents
- T.A. preparation and understanding of material is poor
- More lab structure
- *Less lecture following the book directly, more depth in controversial and current issues

What suggestions would you make to implement your improvements?

More current research

Five-minute question/answer period at end of class

More outside speakers 50/50

Professor work closely with T.A. on preparation for class

- *More tests, quizzes

Write larger

Deviate from book in lecture to greater extent

Tests should emphasize synthesis, not regurgitation

SGIDing by Yourself

Instructors often ask if it is possible to facilitate the SGID method with their own class. A few instructors have experimented with do-it-yourself facilitating, and have reported that they were very pleased with the outcome. They appreciated the immediate feedback and the positive interaction with their students. There was also no need to coordinate arrangements with a colleague/facilitator or to schedule time for feedback sessions.

There are several drawbacks to going the do-it-yourself route, however. First, students have indicated that they would feel uncomfortable evaluating the course with the instructor present. Some more sensitive but important issues might be suppressed. This could be avoided by training a student to facilitate the process, or by instructing group leaders to write comments on the board while the instructor is out of the room. However, the process is then conducted without the skills of a professional facilitator or instructor.

A second difficulty is that students might expect the instructor to respond immediately to their comments, while the instructor might prefer a delay to consider an appropriate response. To formulate a response while a group of students is waiting anxiously for a reply might lead to rejection of a valuable suggestion, commitment to a plan that may later prove unfeasible, or a defensive reaction from the instructor.

A third major drawback is the loss of colleague contact. Many instructors who have used the SGID process see this interaction as invaluable. These meetings provide the instructor with support, a perspective that differs from the students' view of teaching, incentive for change, and practical knowledge in assisting the instructor to plan a response to the evaluation results. Instructors who use the do-it-yourself version should enlist colleague collaboration in discussing the data and planning the reply.

In summary, instructors who plan to facilitate the SGID method with their classes should meet the following qualifications:

- * have good rapport with students
- * feel secure in their teaching ability
- * be willing to accept criticism
- * provide a way for students to comment anonymously
- * be ready to respond to students immediately or be comfortable with telling them you need some time to give fair consideration to their suggestions
- * arrange to discuss the evaluation and your response with a colleague

PEER EVALUATION

Colleagues form a potential gold-mine of ideas, methods, and strategies for improving teaching effectiveness that, more often than not, goes untapped. Bergquist and Phillips (1975) list six possible reasons why faculty are hesitant to share ideas on teaching:

1. faculty tend to identify with a discipline rather than with the teaching profession;
2. academic freedom and classroom autonomy provide no context for discussion;
3. with little formal training as teachers, faculty often feel uncomfortable espousing teaching ideas;
4. organized structures for such activities are often non-existent;
5. time spent with peers is seldom related to issues of teaching;
6. teamwork is not stressed in higher education.

Peer evaluation is one way of fostering an exchange of ideas amongst colleagues.

While colleagues in the same discipline can offer helpful feedback concerning the accuracy, currency, and appropriateness of subject content, it is not necessary to be familiar with the subject matter in order to evaluate instructional skills and teaching effectiveness.

The following four points are helpful in maximizing the usefulness of peer evaluation feedback:

1. choose as a peer evaluator someone you trust and whose advice you respect;
2. meet before the classroom observation to discuss how you teach and why you use certain methods;
3. Point out to your colleague specific activities to focus on in the evaluation process;
4. meet after the observation period to share information collected and devise improvement strategies.

Peer evaluation offers growth possibilities for both the instructor being evaluated and the colleague offering feedback. Observing another's class allows exposure to different techniques and methods of teaching.

Besides observing classroom activities, peer evaluation can give feedback by reviewing an instructor's portfolio of teaching materials (syllabi, handouts, reading lists, tests, etc.).

The following are examples of peer evaluation forms that a colleague might use to aid in the collection of teaching effectiveness data.

DANFORTH PEER EVALUATION

Taken from a Danforth Faculty Fellowship Project Report, "LOOKING FOR GOOD TEACHING: A GUIDE TO PEER OBSERVATION," by Dr. Barbara B. Helling, St. Olaf College, Northfield, MN. (1976)

Some of our potentially most valuable resources in seeking to improve our own teaching are colleagues who share similar goals and similar experiences to our own. Yet comments upon our teaching made by our peers often tend to focus on our mistakes and to consist of generalities that do not deal with behavior we can do anything about, so that rather than providing the guidance we had hoped for, they leave us feeling threatened, helpless, and discouraged.

This observation guide is intended to assist an observer in watching for certain kinds of behavior in order to help the teacher to build on strengths. It provides information for the teacher which is specific so that he receives some concrete information, selective so that he gets some guidance as to appropriate directions for change, and positive so that he gets some encouragement. The observer records actual examples to enable the teacher to use his own best practice as the standard to work toward. The information that comes from the checklist is intended only for the information and use of the teacher, not for evaluation of his performance.

The 270 items were drawn from 70 books and articles about good teaching and each represents a description of a recommended classroom practice. Since there are many kinds of good teaching, there are a wide variety of behaviors listed, including some which are contradictory, the choice depending on what the teacher is trying to do. The items themselves may become a source of ideas for the teacher, suggesting new or alternative teaching practices.

TEACHING THROUGH PRESENTATION

Mechanics

- Maintains eye contact
- Moves about room
- Pays attention to physical comfort and needs of the group (temperature, ability to see or hear, break, etc.)
- Variety (change of pace, movement, gesture, variation in voice quality, use of silence)
- Varies activities over class period
- Vocabulary comprehensible to students
- Assists in mastering new vocabulary (defines, uses)
- Uses illustrative materials or teaching aids
 - pictures, blackboard, slides
 - video, charts or diagram, map
 - stories, personal references, current events items
 - demonstrations, activities, games
 - examples, analogies
- Has students' attention
- Sensitive to response of class
 - Paces delivery to students' capacity to follow
 - Notices questions, volunteers
 - Makes allowance for note taking
 - Anticipates slowness or difficulty in understanding
 - Notes and reacts to non-attending behavior, lack of interest, confusion, etc.
 - Determines if one student's problem is common to others
 - Checks comprehension with specific question before moving on
- Begins and ends class on time

Scholarship

- Includes factual knowledge
- Includes fundamental principles, generalizations, theories
- Includes applications for problem solving and decision making
- Indicates how knowledge is obtained
- Relates content to skills, competencies, and points of view needed by professionals in related fields
- Shows relation of theory to practice
- Discusses or contrasts more than one point of view
- Suggests implications of an idea, position, or theory
- Goes into detail, presents supporting evidence rather than just generalizations
- Presents facts or concepts from related fields or relates topics to other areas of knowledge
- Refers to recent developments in the field
- Gives references for interesting or involved points
- Presents origins of ideas and concepts
- Distinguishes between fact and opinion, data and interpretation
- Deals with controversial topics
- Emphasizes ways of solving problems rather than solutions

Organization

Opening

- States topics
- Provides an overview of what is planned for the class period
- Focuses student attention (by demonstration, activity, question, etc.) before launching into lecture proper
- Presents broader framework within which day's topic can be placed and related

- Relates to previous topic and ties in
- States goals or objectives for class sessions
- Starts slowly, allowing class to "warm up"

Structure and Clarity

- States and follows plan
- Makes organization (chronological, cause-effect, problem solution, etc.) explicit (outline on board, handout, flow-chart, diagram, etc.)
- Presents material in several short blocks
- Summarizes periodically
- Indicates transitions
- Emphasizes important points by incidental cues (voice, gesture pauses, etc.) repeating key phrases, explicit statements ("This is important), listing or elaboration (through detail, examples, analogies, rephrasing)
- Groups subordinate ideas under major ones
- Points out relationships between ideas (i.e., uses specific linking words rather than "and")
- Refers back to points made or terms used earlier
- When comparing, makes basis of comparison clear
- Gives more than one example of application of a generalization, concept, or principle

Closing

- Social ("Have a good weekend")
- Summarizes major points or sees that class does so
- Draws conclusions
- Establishes relationships
- Integrates major points
- Establishes links between familiar and new
- Makes opportunities for questions (see also below)
- Gives students a feeling of accomplishment
- Looks forward to next topic or step

Closing (cont'd)

- Indicates whether a topic will be returned to
- Makes an assignment or suggests an activity which builds on day's topics, something to do or think about

Classroom Relationships

- Appears interested and enthusiastic
- Interacts informally at beginning, end of class
- Calls students by name
- Shows knowledge of individual student's interests, talents, etc.
- Gives motivational cues: indicates important and difficult ideas
 - indicates certain topic will be on examination
 - suggests that material is difficult but learnable
- Relates goals and content to social context, course or personal goals
- Includes material relevant to existing student interests
- Prompts awareness of students' relevant knowledge or experience (gives or asks for examples, refers to prior learning, etc.)
- Makes clear (demonstrates) his own way of considering ideas, attacking problems, etc.
- Refers to work students are doing outside of class
- Uses humor
- Departs from plan to pursue an idea of spontaneous interest
- Requires or makes opportunities for student to process information being provided (from rhetorical questions to discussions, written assignments)
- Admits he doesn't know or is wrong
- Talks about why he does what he does in class
- Informs students of coming campus events related to class
- Seeks feedback on his own

performance

- Accepts student ideas and comments (by reflecting, clarifying, summarizing, encouraging, or praising)
- Makes value implications explicit
- Stresses aesthetic and emotional aspects of subject
- Invites challenge
- Indicates his availability for giving individual help
- Suggests resources for students to explore independently
- Shifts easily from presentation mode to questioning or discussion mode
- Provides opportunities for and encourages audience participation and questions
- Clarifies material when asked
- Calls for questions in a way that does not embarrass or belittle the questioner
- Allows time for the formulation of questions
- Praises question asking, good questions
- Clarifies thinking by identifying reasons for questions
- Makes sure that comments or questions have been heard by all
- Draws out implications of the question
- Answers questions clearly and directly
- Checks to see whether answer has been understood
- Helps student answer his own question
- Encourages students to answer peer questions
- Relates student comments to one another
- Invites students to share their knowledge and experience
- Remembers and refers to student ideas
- Interacts with students not physically nearest him
- Asks follow-up questions
- Uses student questions or comments to introduce new material

TEACHING THROUGH INVOLVEMENT

Mechanics

- Group is of manageable size (15 or fewer)
- Room arranged so all can see and hear one another
- Eye contact indicates that responsibility is shared among members of the group
- Calls students by name

Preparation

- Establishes common ground prior to discussion
- Has provided for input--reading, TV or film viewing, observation, etc.--prior to discussion
- Uses specific means to insure that group members come prepared
- Helps the group agree on definitions and assumptions
- Allocates time for the various steps in the discussion
- Uses specific means to involve students initially in the discussion
- States objectives
- Lets students know what will be expected of them in terms of participation
- Sets a specific objective for the discussion (i.e., produce a list of pros and cons)

Conclusion

- Draws together contributions of various members of the group
- Allows time to consider implications of the content of the discussion outside the classroom
- Requires the group to make a conscious effort to relate the discussion to ideas and concepts acquired in other meetings or other learning situations
- Summarizes and draws new conceptualizations at end
- Encourages students to conclude with a review including:

- restatement of positions taken
- checking if any positions have been modified and why
- consideration of future action
- Suggests a follow-up activity ("Watch for...". "Try this...") related to discussion

Choice of Topic

- Selects issues which are important and which students take seriously
- Involves students in deciding what issues to discuss
- Allows the group some choice in specific discussion content

Involving Students

- Uses questions to stimulate discussion
- Prevents or terminates discussion monopolies
- Makes opportunities (i.e., going around table) for all to participate
- Seeks to involve individuals who are not participating
- Recognizes potential contributor and makes an opening for that person
- Reinforces infrequent contributors
- Assists a quiet student in "saying what he means"
- Protects a quiet student from penalties for being wrong
- Accepts silence

Quality of Interaction

- Intervenes when pauses become long, not to fill them but to find out why
- Willing to abandon an exhausted topic
- Listens
- Reminds students to listen to one another

Quality of Interaction (cont'd)

- Shares his perception of group process or feeling
- When discussion is not going well, stops to deal directly with group processes
- Indicates that personal attacks are out of order
- Helps student to accept correction or appropriate criticism
- Calls attention to and rewards the playing of facilitative group roles
- Encourages students to acknowledge comments of others by summarizing them
- Relieves tension
- Allows time for evaluation of the discussion itself

Quality and Content of Discussion

- Sees that group reviews information from input material before going on to matters of opinion and judgment
- Encourages feeling and opinion before moving to fact
- Sees that errors of fact, logic, or relevance are corrected
- Introduces relevant considerations that have been missed
- Provides needed or relevant information (contributes facts, needed information or sees that they are contributed)
- Questions misconceptions, faulty logic, unwarranted conclusions
- Sees that the group questions the accuracy of statements, the relevance of example and analogy, the adequacy of logic
- Distinguishes a value from a fact
- pursues student ideas when they are not clearly expressed
- Requires student to defend his position, relate it to other ideas, or modify it
- Points out areas of confusion
- Intervenes when discussion gets off the track
- Uses questions to guide discussion

- Tolerates confusion and doubt while students search for a solution
- Summarizes discussion periodically
- Helps students remain aware of logical organization
- Refers back to points made or terms used earlier in discussion

Role of Teacher

- Shifts easily back and forth between presentation and discussion or questioning modes
- Makes own role clear and sticks to it (i.e., moderator, resource person, etc.)
- Delegates role of moderator
- States the issue at the beginning, restates as needed
- Resists the temptation to comment on each student's comment
- Paraphrases student comments for his own or students' understanding
- Uses non-verbal cues (looking, pointing, silence, facial expression) to direct the discussion without intruding
- When necessary to intervene, does so briefly
- Uses strategy on distractors
- Admits not having an answer
- Admits losing control of discussion (How did we get here?)

Controversial Issues

- Selects topics on which a variety of opinion can be expected
- Encourages expression of differences of opinion
- Sets up situation in which students will have to think about both sides of an issue
- Encourages students to challenge, cross question, evaluate one another
- Accepts student point of view where there is legitimate variation in position
- Supports the rights of speakers who hold minority or unpopular views

Controversial Issues (cont'd)

- Attempts to mediate or resolve differences or conflicts among group members
- When very different positions are taken, obtains temporary agreement on part of issue so discussion can continue
- Opens two-member controversy to whole group
- Encourages students to interact directly by asking students to comment on each other's remarks and/or by asking one student to respond directly to another
- Refrains from introducing his own opinion to avoid biasing discussion
- Presents his own opinion to enhance seriousness of discussion
- Encourages students to challenge his expressed opinions
- Encourages students to examine a variety of points of view before drawing conclusions or making judgments

TEACHING THROUGH QUESTIONING

Mechanics

- Sees that everyone hears question and answer.
- Calls on individuals before question to alert.
- Asks group-oriented question, lets all think, then one answer.
- Calls on non-volunteers as well as volunteers.
- Allows time after question for formulation of good answers.
- Allows time after answer to consider it.
- Invites alternative or additional answers.
- Involves a large proportion of the class.

Design of the Questions

- Questions are easily understood, clear in intent and precisely expressed.
- Asks "leading" questions which provide clues to appropriate strategy or way of organizing.
- Prompts with hints, rephrased or simplified questions.
- Asks questions which focus student attention on a particular relevant aspect of the matter at hand.
- Asks related questions in a series.
- Asks questions which require recall of information.
- Asks questions which require processing of information:
 - Grouping and classification
 - Compare and contrast
 - Specify cause and effect or other relationship
 - Analysis
 - Generate examples.
- Asks questions with more than one right answer.
- Asks student to apply information from reading or lecture:
 - Selecting the information to be applied
 - Selecting the problem and letting the student decide what is relevant.
- Asks questions which require student to generalize,
 - to make inferences,
 - to evaluate
- Asks questions on matter of opinion, where any answer is right
- Asks questions which encourage students to guess or hypothesize about the unknown or untested, to speculate or invent
- Asks questions that relate to the experience of the student
- Requires student to support answer with evidence or argument

Design of the Questions (cont'd)

- Requires students to specify standard or criteria when expressing judgements or making evaluative statements
- Asks questions that go beyond the facts
- Asks questions that stimulate reflection beyond the class itself
- Asks a variety of questions for different pedagogical purposes:
 - Emphasis
 - Practice (drill)
 - Self-awareness (student to realize he isn't getting it)
 - Attention
 - Variety, change of pace in classroom
 - Review

Class Atmosphere

- Lets students know they are free not to respond
- Makes it:
 - "safe" to speak
 - "safe" to be wrong
- Holds attention of students who are not directly interacting with the teacher
- Allows students to respond to one another

Reception of Answers

- Gives evidence of listening to answers, not just waiting to hear an expected answer
- Rephrases an answer to be sure he understands
- Tries to understand a divergent response rather than rejecting it
- Asks for further clarification
- Corrects misconceptions, sees that correct answer is brought out
- Returns response to student for correction, clarification of thought, rewording of fuzzy statements
- Gives reasons when rejecting an answer

- Follows up short or inadequate answers with a probing response that requires student to extend or improve his answer
- Accepts and acknowledges all answers ("I see what you mean", "Mmmm") or by reflecting,
 - by clarifying
 - by summarizing
- Responds directly rather than by praising
- Praises answers
 - Praises an answer selectively, finding some good part
- Acknowledges the correct part of a partially correct answer and tries to get the incorrect part improved -- by the same person or another
- Praises or corrects answers which can be judged by definition, custom, or empirical validation, not others
- Accepts all responses but praises those closest to the standard more vigorously
- Asks student to check a wrong answer against other known information or evidence
- Reminds student of relevant known information or evidence
- Recognizes student's right to his own opinion where question is a matter of opinion
- Accepts the emotional content of an answer independent of its correctness
- Responds by expressing his own ideas
- Returns question to student to pinpoint difficulties, begin to conceptualize solutions
- Encourages students to evaluate their own or one another's answers (What would happen if you did it that way?)
- Allows, even encourages students to disagree
- Accepts wild or far-fetched answers

COUNCIL FOR THE ADVANCEMENT OF SMALL COLLEGES
INSTRUCTIONAL ASSESSMENT SYSTEM
PEER EVALUATION FORM

Course Number and Title: _____

Date Course was Observed: _____

Instructor's Name: _____ Observer's Name: _____

SECTION I: *General Evaluation*

Following are several sets of statements concerning specific aspects of the course that you just observed. Please indicate the extent to which you would agree or disagree with each statement concerning the instructor.

1 = strongly agree

3 = disagree

2 = agree

4 = strongly disagree

5 = uncertain or nonapplicable

I. *Structure and Goals*

- 1. The instructor clearly conveyed the purpose for each activity (lecture, discussion, and so forth) of the class period.
- 2. The stated purposes were consistently followed throughout the class period.
- 3. The class presentation seemed to be carefully planned and organized.
- 4. The various elements of the class period (for example, lecture, material written on blackboard, slides, handouts) were effectively integrated.
- 5. The class presentation built toward one or more basic principles or conclusions that the students seemed to understand clearly.

II. *Instructor-Student Rapport*

- 6. The instructor demonstrated fair and equal concern for all students attending the class.
- 7. The instructor answered questions in a straightforward and understandable manner.
- 8. The instructor encouraged and helped interaction among the students.
- 9. The instructor appeared to be open to the ideas, suggestions, and criticisms of all of the students in the course.
- 10. The students seemed to be genuinely receptive to the ideas of the instructor during this class period.

III. *Subject-Matter and Instruction*

- 11. The instructor conveyed an enthusiasm about the course and subject matter.
- 12. The instructor presented material that was appropriate for the level of the course and for the level of preparation of the students.
- 13. The course material was presented in a dull or repetitive manner.
- 14. The biases of the instructor were clearly and consistently conveyed during this class period.
- 15. The instructor demonstrated adequate knowledge of the subject matter being conveyed.
- 16. The instructor introduced the topic(s) of this class period in a manner that was both stimulating and relevant.
- 17. The transitions between topics were conducted in an effective manner.
- 18. The major points of this class period were reviewed by the instructor.
- 19. The instructor's questions could usually be answered just by remembering facts.
- 20. The instructor asked questions requiring opinion, previous knowledge, or thought.
- 21. Questions tended to be asked of individuals rather than the group as a whole.
- 22. The instructor used student answers and comments to encourage or bring other students into the discussion.
- 23. Questions were interspersed throughout the class period.
- 24. The students were generally attentive throughout the class period.
- 25. Special or supplementary materials (for example, handouts, slides, displays) were effectively managed by the instructor.

IV. *General*

- 26. I would recommend this course to students I am advising.
- 27. I personally found this class period to be interesting and informative.
- 28. I believe that I was able to fairly judge the nature and tenor of the teaching-learning process during this class period.

BEST COPY AVAILABLE

Comments: (to clarify or expand on any of your ratings)

SECTION II: *The Instructor*

Indicate for each word or phrase listed below the extent to which you think it accurately describes the instructor as you observed him performing in this course. Please use the following key in responding to these words and phrases:

- 1 = this word or phrase does not describe this instructor
- 2 = this word or phrase partially describes this instructor
- 3 = this word or phrase accurately describes this instructor
- 4 = uncertain or nonapplicable

..... Uses gestures	 Flexible in response to students
..... Pauses occasionally	 Too slow in making presentations
..... Moves about	 Too fast in making presentations
..... Varies pitch and tone of voice	 Too active
..... Uses language the students could understand	 Not active enough
..... Sufficient eye contact with students	 Nonverbally expressive
..... Clear presentation	 Annoying mannerisms

SECTION III: *Teaching Strategies*

Several teaching strategies have been often found to be effective means of increasing student involvement, as well as student learning, in a variety of disciplines. Please read the brief descriptions of each strategy, then indicate the extent to which you observed this strategy being

employed during this class period. If possible, also provide concrete examples of each strategy as it was used during this class period.

1. *Setting the Stage*: the preparation of a class for the learning which is to follow, often through an analogy, a demonstration, or a leading or provoking question. This provides a common frame of reference between the instructor and the students and increases the interest of the students in the major theme or topic to be covered.

..... I did not observe stage setting.

..... I observed stage setting being used in a relatively unsuccessful manner.

..... I observed stage setting being successfully used.

EXAMPLE:

2. *Varying the Presentation*: verbal and/or nonverbal techniques for varying the mode of presentation to the students. These may be variations in interaction styles, movement, planned repetition, audio-visual materials, use of examples, and so forth.

..... I observed very little variation in presentation of materials.

..... I observed a moderate amount of variation.

..... I observed a large amount of variation.

EXAMPLE:

3. *Encouraging the Student*: the instructor encourages the participation of students by means of a smile, nod of the head, eye-contact, and so forth.

..... I observed very little encouragement of students.

..... I observed a moderate amount of encouragement.

..... I observed a large amount of encouragement.

EXAMPLE:

4. *Awareness of Student Attention*: an awareness on the instructor's part of student nonverbal behavior (facial information about boredom or interest, comprehension or puzzlement, and involvement or withdrawal).

..... The instructor did not seem to be aware of the level of student attention.

..... The instructor seemed to be moderately aware of student attention.

..... The instructor seemed to be fully aware of student attention.

EXAMPLE:

5. *Probing Questions*: the response of the instructor to superficial or preliminary answers or statements made by students. Probing requires the student to go beyond a one word response. Skillful probing techniques help the instructor both to bring more out of a student and to keep a classroom discussion interesting.

..... I did not observe any probing questions.

..... I observed a few probing questions (1-5).

..... I observed many probing questions (more than 5).

EXAMPLE:

6. *Higher-Order Questions*: questions which require a student to go beyond a factual or descriptive statement and to generalize, to relate facts in meaningful patterns, to compare and contrast concepts, or to make inferences. Higher order questions lead students to figure out answers rather than to remember them.

..... I did not observe any higher-order questions.

..... I observed a few higher-order questions (1-5).

..... I observed many higher-order questions (more than 5).

EXAMPLE:

7. *Divergent Questions*: open-ended questions, ones without a "right" answer, requiring students to use both concrete and abstract thinking and to determine for themselves an appropriate response. Students are urged to explore the problem in whatever direction they prefer. The emphasis is on creative, adventurous thinking.

..... I did not observe any divergent questions.

..... I observed a few divergent questions (1-5).

..... I observed many divergent questions (more than 5).

EXAMPLE:

8. *Closure*: integrating the major points of a presentation, providing a link between the familiar and the new parts of the presentation, providing the students with a needed sense of achievement at the end of the presentation (or subsections of the presentation).

..... I did not observe closure being used.

..... I observed closure being used in a relatively unsuccessful manner.

..... I observed closure being successfully used.

EXAMPLE:

SECTION IV: *Final Comments*

Please answer the following open-ended questions. Try to be as specific as possible in responding to each question.

1. What part(s) of the class seemed to particularly enhance the learning process?

2. What specific suggestions would you make concerning how this particular class could have been improved?

FROM: Bergquist, W.H. and Phillips, S.R.
A Handbook for Faculty Development: Vol. I
Washington, D.C.: CASC. 1975.

TEACHING IMPROVEMENT PROCESS

The Teaching Improvement Process (T.I.P.) is a formative evaluation system that involves identification of specific instructional strengths and weaknesses through the collection and analysis of feedback from a variety of sources. T.I.P. is a voluntary and confidential peer tutoring system characterized by an interchange between a peer observer (Teaching Consultant) and an instructor (Teaching Client). The Teaching Consultant is a full-time faculty member who has been trained in the process and given a reduced teaching assignment in order to work with other faculty.

The process combines classroom observation by the Teaching Consultant, videotaping of the class, student evaluations, self-evaluation and predictions of student evaluation responses, and analysis of course materials. This collection of data typically requires one to two hours of the faculty member's time and twenty minutes of class time for student evaluation activities.

The Teaching Consultant and the instructor together evaluate all of the information collected in an attempt to identify the instructor's specific strengths and weaknesses. They then decide which of these the instructor will focus on. This data analysis and negotiation stage generally involves sixty to ninety minutes of the instructor's time.

The next stage of the process involves developing and implementing improvement strategies. Since improvement strategies are designed to fit each instructor's particular improvement goals, instructional situation, and unique teaching style, activities during this stage vary widely from instructor to instructor. Improvement strategies are often designed to utilize or build upon existing teaching strengths, and, while these strategies are always designed to help the faculty member improve skills or solve problems within the context of a specific class, the benefits of the improvement effort are often generalized to other classes. The time invested in this stage of the process is always negotiated between the instructor and the consultant and varies greatly from one faculty member to another. Faculty members typically invest ten to twelve total hours for the entire process which lasts one quarter. The instructor learns a method which can be used to evaluate and view her own teaching in the future.

The Teaching Improvement Process was developed at the University of Massachusetts and later refined at the University of Kentucky. In the Spring of 1984, the Vocational Instructor Teaching Skills Project sponsored a workshop to train Teaching Consultants from Oregon's community college faculty. To participate in T.I.P. or to obtain more information regarding the process contact your Staff Development Office, the Office of the Dean of Instruction, or your campus T.I.P. Teaching Consultant.

FROM: Bergquist & Phillips
The Handbook of Faculty Development: Vol. II
and
notes of Mildred Butterfield, Mt Hood CC

BEST COPY AVAILABLE

OUTLINE OF THE TEACHING IMPROVEMENT PROCESS

- I. Data Collection
 - A. Initial Interview
 - B. Syllabus and Course Materials
 - C. Classroom Observation
 - D. Teaching Analysis By Students (TABS) Questionnaire
 - 1. Faculty's Self-Assessment on TABS
 - 2. Student Responses on TABS
 - 3. Faculty's Prediction of Student Responses on TABS
 - E. Videotaped Sample of Teaching
- II. Data Analysis
 - A. By Faculty Member
 - B. By Teaching Consultant
- III. Data Review Session
 - A. Teaching Strengths Identified
 - B. Teaching Weaknesses Identified
 - C. Areas of Focus Identified for Improvement Strategies
- IV. Teaching Improvement Strategies
 - A. Teaching Tips
 - B. Training Materials
 - C. Classroom Implementation Strategies
 - D. Monitoring Strategies
- V. Data Re-Collection
 - A. Classroom Observation
 - B. Post-TABS-Student Responses
 - C. Videotaped Sample of Teaching
 - D. Revised Course Materials
- VI. Final Interview and Evaluation
 - A. Data Review
 - B. Suggestions for Continued Use of Any or All Process
 - C. Evaluation By the Faculty Client of the Process and of the Teaching Consultant

EVALUATION OF INSTRUCTIONAL EFFECTIVENESS

BIBLIOGRAPHY

- Doyle, Kenneth O. Evaluating Teaching. Lexington, MA : D.C. Heath, 1983.
Excellent assimilation of major research findings and current theories of teacher evaluation practices into an easily understood presentation.
- Bergquist, William H. & Phillips, Steven R. A Handbook for Faculty Development. Washington, D.C. : Council for the Advancement of Small Colleges, 1975.
- Bergquist, William H. & Phillips, Steven R. A Handbook for Faculty Development: Volume 2. Washington, D.C. : Council for the Advancement of Small Colleges, 1977.
- Bergquist, William H. & Phillips, Steven R. A Handbook for Faculty Development: Volume 3. Washington, D.C. : Council of Independent Colleges, 1981.
These three volumes contain a wealth of practical exercises, handouts, and forms for the evaluation of instruction. Faculty development is examined at the instructional, personal, and organizational level.
- Fuhrman, B.S. & Grasha, A.F. A Practical Handbook for College Teachers. Boston: Little, Brown, 1983.
Very good melding of theory and practical application. Chapter 8 discusses formative evaluation and offers several methods for evaluating instructional effectiveness.
- Millman, J. (Ed.). Handbook of Teacher Evaluation. Beverly Hills: Sage, 1981.
Good reference on the various uses of evaluation. Discusses the advantages and disadvantages of many sources of evaluative feedback.

VOCATIONAL INSTRUCTOR TEACHING SKILLS PROJECT

RESOURCE MATERIALS EVALUATION

1. CONTENT TOPIC _____.
2. Did you find the resource materials helpful? Yes__ No__

_____.
3. What material was most helpful? _____.
4. What material was least helpful? _____.
5. Do you know of any materials you believe we should add to the packet?_____
_____.
6. Do you work with non-traditional role students (males in traditional female occupational roles or females in traditional male occupational roles)?
Yes__ No__
If yes, will these materials help you in meeting this group's needs?
Yes____ No____
_____.
7. Do you work with the handicapped and disadvantaged? Yes__ No__
If yes, will these materials help you in meeting this group's needs?
Yes__ No__

_____.
8. Comments: _____

_____.

VOCATIONAL INSTRUCTOR TEACHING SKILLS PROJECT

RESOURCE PACKET - SHORT VERSION

COMPUTER-BASED EDUCATION

This packet contains resource materials for further exploration of Computer-Based Education. Training participants at Oregon community colleges were given personal copies of these materials. We suggest you review this packet, making additions and deletions to meet your particular staff needs. You may copy any of the printed materials in this packet.

Copies of the following materials were also included in the packet. You may want to obtain these items to include in your resource packet.

RRS MINI-LIST - RESOURCES FOR MICRO COMPUTERS IN EDUCATION
descriptive list of organizations involved with CBE,
including mailing addresses, phone #'s, and people to
contact for additional information.

RRS: Ms. Ruth Gordon
National Center for Research in Voc. Ed.
Ohio State University
1960 Kenny Road
Columbus, Ohio
PH: (800) - 848-4815

EVALUATOR'S GUIDE FOR MICROCOMPUTER BASED INSTRUCTIONAL PACKAGES

1983. Published by ICCE.

- a detailed guide to aid educators in evaluating
educational software.

ICCE
135 Education
University of Oregon
Eugene, Oregon 97403
PH: (503) - 536-4414

INTRODUCTION TO COMPUTER-BASED EDUCATION. 1983. Digital Equipment Corp

- an informative primer covering the history,
characteristics, benefits, and concerns of CBE.

Digital Equipment Corp.
Northboro, MA.

A copy of a recent periodical in CBE was also included. Addresses for several of these publications are included in the enclosed written materials.

If you have time, please drop a line letting us know how you used this module in your educational setting.

Jim Rollins
MHCC
26000 S.E. Stark
Gresham, Ore. 97030

VOCATIONAL INSTRUCTOR TEACHING SKILLS PROJECT

RESOURCE PACKET

The packet contains resource materials to aid you in learning more about Computer Based Education (CBE). This packet supplements the videotape on CBE and the first item in this packet is an evaluation form for the videotape. Please take a few minutes to complete this form.

Other information in this packet includes:

- A list of organizations concerned with Computer Based Education;
- A list of educational magazines;
- A Bibliography
- Introduction to Computer Based Education. Part I is a good primer on general CBE. Part II is an authoring system specific to Digital Equipment and can be ignored unless you have access to Digital Equipment and are writing your own programs;
- T.R.S. offer of free courses in educational computing and/or basic programming;
- A back issue of T.H.E. (Technological Horizons in Education), a representative publication covering CBE, with an offer of a free one-year subscription.
- Another evaluation form, this one concerning the resource materials.

We hope this material will be of help to you. We would like to thank the Digital Corp., T.R.S. Corp., and T.H.E. magazine for their generous help and donation of materials that appear in this packet. Also, a special thanks to the many people who assisted in the development and production of the videotape.

If you have any questions or comments please feel free to contact:

Jim Rollins
Project Coordinator
Mt. Hood Community College
26000 S.E. Stark
Gresham, OR. 97030
Telephone: (503)667-7136

VOCATIONAL INSTRUCTOR TEACHING SKILLS PROJECT

VIDEOTAPE EVALUATION

1. TAPE TOPIC _____.
2. Did you experience any technical difficulties with the tape? Yes___ No___
If yes, please elaborate _____.
3. Was the videotape content helpful? Yes___ No___
_____.
4. Do you have any suggestions for improving the presentation? _____
_____.
5. Do you work with non-traditional role students (males in traditional female occupational areas or females in traditional male occupational areas)?
Yes___ No___
If yes, will the videotape materials help you in meeting this group's needs?
Yes___ No___ _____.
6. Do you work with handicapped and disadvantaged students? Yes___ No___
If yes, will the videotape materials help you in meeting this group's needs?
Yes___ No___ _____.
7. Comments: _____

_____.

BEST COPY AVAILABLE

VOCATIONAL INSTRUCTOR TEACHING SKILLS PROJECT

RESOURCE MATERIALS EVALUATION

1. CONTENT TOPIC _____.
2. Did you find the resource materials helpful? Yes__ No__

_____.
3. What material was most helpful? _____.
4. What material was least helpful? _____.
5. Do you know of any materials you believe we should add to the packet?_____
_____.
6. Do you work with non-traditional role students (males in traditional female occupational roles or females in traditional male occupational roles)?
Yes__ No__
If yes, will these materials help you in meeting this group's needs?
Yes__ No__

_____.
7. Do you work with the handicapped and disadvantaged? Yes__ No__
If yes, will these materials help you in meeting this group's needs?
Yes__ No__

_____.
8. Comments: _____

_____.

America's Educational Challenge™

Basic Computer Literacy Training Scholarship

This Certificate Entitles Bearer to Attend the Following
Radio Shack Computer Center Educational Courses Free of Charge:

■ Part 1: Introduction to BASIC

An introduction to TRS-80 microcomputers and TRS-80 BASIC programming language. The participant will be able to write simple programs upon successful completion of the course. No prior knowledge of computers or programming is assumed.

Length: 10 Hours
Regular Cost: \$49.95

■ Part 2: BASIC Programming

Follow-up to Part 1: Introduction to BASIC. Upon successful completion of the course, the participant will be able to write computer programs with a moderate degree of complexity. Topics include system commands, editing, types of variables, two-dimensional arrays, relational and logical operators, formatting outputs, memory management and string manipulation. Completion of Part 1: Introduction to BASIC or equivalent knowledge is required for admission.

Length: 10 Hours
Regular Cost: \$99.95

■ Educators' Workshop

Designed to give professional educators an overview of microcomputer applications in the classroom, with emphasis on the hardware and courseware available. (Radio Shack products and services are presented for illustration of concepts.) No previous knowledge of computers is assumed.

Length: 3-4 Hours
Regular Cost: \$59.95

This certificate applies to qualified educators only. Bearer must show current teaching certificate or similar identification.

School Principal

John V. Roach

Chairman of the Board
Chief Executive Officer
Tandy Corporation

66

School

Date

67

MICROCOMPUTERS: SOME BASIC RESOURCES

A resource guide published by the ERIC Clearinghouse on Information Resources containing selected sources for individuals who need to know where to look for more information about microcomputers and their educational uses.

1. What are good sources of information about microcomputers for people with no background?

These publications contain information about the nature of microcomputers and basic issues involved in their use, hardware and accessories, instructional applications and software, current developments, and computer languages, and include resource lists for further study.

Coburn, P., et al. Practical guide to computers in education. Reading, MA: Addison-Wesley, 1982.

Heller, R. S., & Martin, C. D. Bits 'n bites about computing: A computer literacy primer. Rockville, MD: Computer Science Press, 1982.

Kepner, H. S., Jr. (Ed.). Computers in the classroom: Developments in classroom instruction. Washington, DC: National Education Association, 1982.

Miller, I. Microcomputers and the media specialist: An annotated bibliography. Syracuse, NY: ERIC Clearinghouse on Information Resources, 1981, 70pp. (Information Resources Publications, 030 Huntington Hall, Syracuse University, Syracuse, NY 13210; IR-57, \$4.25)

Moursund, D. Introduction to computers in education for elementary and middle school teachers. Eugene, OR: International Council for Computers in Education, 1982, 93pp. (ICCE, 135 Education, University of Oregon, Eugene, OR 97403; \$7.00)

Papert, S. Mindstorms: Children, computers, and powerful ideas. NY: Basic Books, 1980.

Thomas, J. L. (Ed.). Microcomputers in the schools. Phoenix, AZ: Oryx Press, 1981.

Seidel, R. J., Anderson, R. E., & Hunter, B. (Eds.). Computer literacy: Issues and directions for 1985. New York: Academic Press, 1982.

Resource Guides:

Clay, K. (Ed.). Microcomputers in education: A handbook of resources. Phoenix, AZ: Oryx Press, 1982.

1984 Classroom Computer News directory of educational computing resources. Watertown, MA: Intentional Educations, 1983. (341 Mt. Auburn St., Watertown, MA 02172; \$9.95)

2. How can I decide which microcomputer to buy?

Once you have determined how a microcomputer can be used in meeting your educational program objectives, you will need information about the types of equipment that are available to fit your needs. These are several of the many available sources:

Auten, A. ERIC/RCS: A guide to purchasing a microcomputer. Journal of Reading, December 1982, 26(3), 268-271.

Becker, G. Memorandum to beleaguered buyers; Topic: Microcomputer purchases. Electronic Education, October 1982, 2(2), 28-29.

Botterell, A. Which micro for me? Educational Computer, January-February 1982, 2(1), 30-31, 50-51.

Computer Equipment Review, Meckler Publishing, 520 Riverside Avenue, Westport, CT 06880; 2/year, price varies from \$95.00 to \$175.00 depending on library acquisitions budget.

Douglas, S., & Neights, G. Microcomputer reference: A guide to microcomputers. Microcomputers in education series. Harrisburg: Pennsylvania State Department of Education, 1980. (ERIC Document Reproduction Service, P.O. Box 190, Arlington, VA 22210; ED 205 203; MF-\$.97/PC-\$3.90)

EPIE equipment report 98/99e: Microcomputer hardware/interactive video systems. Stony Brook, NY: EPIE Institute, Fall/Winter, 1981. (P.O. Box 620, Stony Brook, NY 11790)

Harper, D. O., & Stewart, J. H. Run: Computer education. Section 5: Software and hardware selection. Monterey, CA, Brooks/Cole, 1983.

Illustrated equipment encyclopedia: Computer. Shawnee Mission, KS: Bill Daniels, Publishers, 1983. (12113 Johnson Drive, PO Box 2056, Shawnee Mission, KS 66201; \$95.00)

Micro-Hardware PRO/FILES Educational Products Information Exchange (EPIE) and Consumers Union, P.O. Box 839, Watermill, NY 11976; \$125.00.

Popular Computing, P.O. Box 307, Martinsville, NJ 08836; 12/year, \$15.00. Frequently publishes articles on microcomputer features, accessories, uses, availability, price, and available languages.

3. How can I locate available software?

An important consideration in the selection of a microcomputer for instructional purposes is the type of computer programs, or software, available for use with each system. Help in locating catalogs and vendors is found in listings below:

Chartrand, M. J., & Williams, C. D. (Eds.). Educational software directory: A subject guide to microcomputer software. Littleton, CO: Libraries Unlimited, 1982. \$22.50.

Datapro directory of microcomputer software. Delran, NJ: Datapro Research Corporation, 2 volumes; updated monthly, \$270.00/year.

Educational and business software related products for Apple II, Atari, PET, TRS-80. Branford, CT: Marck, 1982. (280 Linden Avenue, Branford, CT 06405)

Haven, B. (Ed.). Software finder: A guide to educational microcomputer software. Cambridge, MA: TERC Publications, 1983. (44 Brattle Street, Cambridge, MA 02138; \$16.00)

Instructor computer directory for schools 1982-83. New York: Instructor, 1982. (Instructor Publications, 757 Third Avenue, New York, NY 10017; annual, \$19.95)

International microcomputer software directory. Fort Collins, CO: Imprint Software, 1982. (1520 South College, Fort Collins, CO 80524; \$39.95 plus \$2.95 postage and handling; quarterly updates, \$39.95/year). Available online as DIALOG file 232 (DIALOG Information Services, 3640 Hillview Avenue, Palo Alto, CA 94304)

School CourseWare Journal, 4919 N. Millbrook, #222B, Fresno, CA 93726; 5/year, \$75.00 (cassette), \$90.00 (diskette).

SOFTSWA1 Program, San Mateo County Office of Education, 333 Main Street, Redwood City, CA 94063. A project offering more than 200 public-domain instructional programs for purchase or exchange. Contact: Ann Lathrop, Library Coordinator; please include \$1.00 for ordering/exchange information.

Swift's 1982 educational software directory. Austin, TX: Sterling Swift, 1982.

1983 microcomputer market place. New York: Dekotek, 1982. (2248 Broadway, New York, NY 10124; \$65.00)

4. Are there evaluations available for microcomputer software?

There are many additional sources of software evaluations since the first edition of this resource guide was prepared in April 1982. Those listed below should provide valuable information for decision-making.

Apple Journal of Courseware Review, Apple Education Foundation, Apple Computer, Inc., 20525 Mariani Avenue, Cupertino, CA 95014; \$5.95/issue.

Courseware Report Card: Evaluations of Microcomputer Programs for Education, Educational Insights, 150 West Carob Street, Compton, CA 90220. Elementary Education, 5/year, \$49.50; Secondary Education, 5/year, \$49.50; both for \$95.00.

Curriculum Review, "Computer Center Section," 517 South Jefferson Street, Chicago, IL 60607; 5/year, \$35.00.

Lathrop, A. (Ed.). Digest of Software Reviews: Education, School and Home CourseWare, Inc., 1341 Bulldog Lane, Suite C, Fresno, CA 93710; 4/year, \$47.95.

Media Review, 346 Ethan Allen Highway, P.O. Box 425, Ridgefield, CT 06877; 10/year, K-8 or 9-college editions, \$69.00 each, K-college (combined), \$99.00.

Microcomputer Courseware/Microprocessor Games. EPIE Materials Report 98/99m, Stony Brook, NY: EPIE Institute, 1981. (P.O. Box 620, Stony Brook, NY 11790; \$25.00)

Micro-Courseware PRO/FILES. Educational Products Information Exchange (EPIE) and Consumers Union, P.O. Box 839, Watermill, NY 11976; \$125.00.

School Microware Reviews: Evaluations of Educational Software for Apple, Atari, Pet, TRS-80. Dresden, ME: Dresden Associates; 3/year, \$45.00. (P.O. Box 246, Dresden, ME 04342)

Software Review, Meckler Publishing, 520 Riverside Avenue, Westport, CT 06880; 2/year, \$38.00.

MicroSIFT, located at the Northwest Regional Educational Laboratory, is a National Institute of Education-sponsored clearinghouse for microcomputer instructional software, K-12. It was established to design effective procedures for collection, evaluation, and dissemination of materials and information, and to incorporate a flexible user support and technical assistance component.

Address: Northwest Regional Educational Laboratory, Computer Technology Program, 300 S.W. Sixth Avenue, Portland, OR 94204; Judith Edwards-Allen, Director

Publications: Evaluator's guide for microcomputer-based instructional packages, 1981, 61pp. (ERIC Document Reproduction Service, P.O. Box 190, Arlington, VA 22210; ED 206 330; MF-\$.97/PC-\$5.65)

Holznagel, D. C. (Ed.). MicroSIFT courseware evaluations (1-87). Portland, OR: Northwest Regional Educational Lab, 1982, 124pp. (ERIC Document Reproduction Service, P.O. Box 190, Arlington, VA 22210; ED 226 765; MF-\$.97/PC-\$9.15)

Database: Resources in Computer Education (RICE), contains information concerning the state of the art in elementary and secondary school computer applications, and includes direct references to software packages and producers. RICE is available online through Bibliographic Retrieval Services, 1200 Route 7, Latham, NY 12110.

Guidelines for doing your own program evaluation are found in the publications listed below:

Forman, D., et al. Reference manual for the instructional use of microcomputers. Volume I (Release II). Victoria, British Columbia: JEM Research, 1981, 873pp. (ERIC Document Reproduction Service, P.O. Box 190, Arlington, VA 22210; ED 208 849; MF-\$1.97/PC-\$61.65; also available from JEM Research, Discovery Park, PO Box 1700, Victoria, BC V8W 2Y2; \$75.00)

Heck, W. P., Johnson, J., & Kansky, R. J. Guidelines for evaluating computerized instructional materials. Reston, VA: National Council of Teachers of Mathematics, 1981. (1906 Association Drive, Reston, VA 22091; \$3.75)

Lathrop, A., & Goodson, B. Courseware in the classroom: Selecting, organizing, and using educational software. Menlo Park, CA: Addison-Wesley, 1983.

Ragsdale, R. G. Evaluation of microcomputer courseware. Toronto, Ontario: Ontario Institute for Studies in Education, 1982.

5. How can I find out what other people are doing with microcomputers?

The information files and network, and directory of applications listed are useful for locating program descriptions, as well as addresses and contact people.

Microcomputer directory Application in educational settings. 2nd edition. Cambridge, MA: Harvard University, Monroe C. Gutman Library, 1982, 150pp. (Monroe C. Gutman Library, Graduate School of Education, Appian Way, Cambridge, MA 02138) A directory describing projects utilizing microcomputers for instructional and administrative purposes at 1,000 sites in the U.S.

Microcomputer Index, Microcomputer Information Services, 2646 El Camino Real, #247, Santa Clara, CA 95051; 4/year, \$22.00. Indexes over 40 periodicals. Available online as DIALOG file 233 (DIALCC Information Services, 3640 Hillview Avenue, Palo Alto, CA 94304).

School Practices Information Network (SPIN) and File (SPIF), Bibliographic Retrieval Services, 1200 Route 7, Latham, NY 12110. The SPIN/SPIF program is an attempt to provide both a centralized file for general sharing of validated and exemplary educational practice information, while at the same time providing network linkages between agencies housing unique collections of information in a variety of practical application areas.

There are two additional sources which provide access to the tables of contents of periodicals which contain information about computing:

Computer Contents, P.O. Box 3014, Northbrook, IL 60062; 26/year, \$95.00.

Data Processing and Information Science Contents (DISC), Bibliographic Retrieval Services, 1200 Route 7, Latham, NY 12110. DISC is an online database providing access to microcomputing literature in leading journals and including peripheral or related data on mini systems, information science, and electronic data processing.

6. The fifth National Educational Computing Conference was held June 6-8, 1983 in Baltimore, Maryland. Proceedings of the first four conferences are listed below:

Harris, D. (Ed.). Proceedings of NECC 1979 National Educational Computing Conference (1st, Iowa City, IA, June 25-27, 1979), 393pp. (EDRS, P.O. Box 190, Arlington, VA 22210; ED 178 068; MF-\$.97; 111 Weeg Computing Center, University of Iowa, Iowa City, IA 52242; \$10.00)

Harris, D., & Collison, B. (Eds.). Proceedings of NECC/2 National Educational Computing Conference 1980 (Norfolk, Virginia, June 23-25, 1980), 306pp. (EDRS, P.O. Box 190, Arlington, VA 22210; ED 194 060; MF-\$.97; 111 Weeg Computing Center, University of Iowa, Iowa City, IA 52242; \$10.00)

Harris, D., & Nelson-Heern, L. (Eds.). Proceedings of the NECC 1981 National Educational Computing Conference (3rd, North Texas State University, Denton, Texas, June 17-19, 1981), 361pp. (EDRS, P.O. Box 190, Arlington, VA 22210; ED 207 526; MF-\$.97; Computer Science Department, University of Iowa, Iowa City, IA 52242; \$10.00)

Smith, J. (Ed.). Proceedings of NECC-83 National Educational Computing Conference, 419pp. (EDRS, P.O. Box 190, Arlington, VA 22210; IR 010 757--check in Resources in Education monthly index for ED number in September 1983--MF-\$.97)

7. Where can I find statistical information about microcomputer use?

A number of organizations collect statistical information about microcomputers, in addition to other subjects. Their addresses are listed below.

Center for Social Organization of
Schools
Johns Hopkins University
3505 North Charles Street
Baltimore, MD 21218

International Resource Development, Inc.
Market Research
30 High Walk Street
Norwalk, CT 06851

Market Data Retrieval
Ketchum Place
Westport, CT 06880

Micro Market Examiner
Morgan Point Press
P.O. Box 411
Eureka Springs, AR 72632

Mike Wilson List Counsel, Inc.
732 Washington Street, Suite 2
Marina del Rey, CA 90291

National Center for Education Statistics
U. S. Department of Education
400 Maryland Avenue, S.W.
Mail Stop 1001
Washington, DC 20202

Quality Education Data, Inc.
70 West 6th Avenue
Denver, CO 80284

BEST COPY AVAILABLE

7. Where can more information about microcomputers be found?

The ERIC (Educational Resources Information Center) system sponsored by the National Institute of Education of the U.S. Department of Education has been collecting documents on computers since 1966 and indexing articles from key journals since 1969. The subject heading "Microcomputers" was added in March 1980, and "Computer Literacy" in April 1982, to describe the contents of the documents and articles. Abstracts of the documents can be found in:

Resources in Education, published monthly by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402, and available in more than 3,500 libraries throughout the world.

Selected journal articles on the topic of computers have been indexed and annotated and are listed in:

Current Index to Journals in Education, found in many libraries or available from Oryx Press, 2214 North Central Avenue at Encanto, Phoenix, AZ 85004.

Computer searching of ERIC is available in many academic and some public libraries. Two of the major online database vendors, Bibliographic Retrieval Services and DIALOG Information Services, now have special hours and services for home computer users which allows them access to the ERIC database and others at reduced rates. Contact them for information about the services:

BRS/After Dark

Bibliographic Retrieval Services, Inc.
1200 Route 7
Latham, New York 12110
800-833-4707 or 518-783-1161

Knowledge Index

DIALOG Information Retrieval Service
3460 Hillview Avenue
Palo Alto, California 94304
800-227-1930 or 800-982-5838 (in CA)

The ERIC/IR Clearinghouse has a publications list of information analysis products about current issues and developments in the field, fact sheets and mini-bibliographies, and ERIC/IR Update, a newsletter published twice a year. All items are available without charge. Contact the Clearinghouse for more information on specific topics.

* * * * *

Marilyn R. Laubacher, User Services Coordinator, ERIC Clearinghouse on Information Resources, Syracuse University, School of Education, Syracuse, New York 13210, 315-423-3640.

Updated edition, June 1983

COMPUTERS IN EDUCATION

A bibliography of recent books on computers especially suitable for educators, developed for the symposium, THE COMPUTER: EXTENSION OF THE HUMAN MIND II, sponsored by the College of Education, University of Oregon, July 20-22, 1983. (Sylvester & Acheson Books, 825 E. 13th, Eugene 97401. 343-6705.

Billings, Karen, and David Moursund. ARE YOU COMPUTER LITERATE? (1979, Dilithium Press, Beaverton, Ore.) Good intro to capabilities, limitations, applications, implications of computers.

Bork, Alfred. LEARNING WITH COMPUTERS. (1981, Digital Press) State of art assessment on CAI tech.

Coburn, Peter, etc. PRACTICAL GUIDE TO COMPUTERS IN EDUCATION. (1982, Addison Wesley) Good intro.

Decken, Joseph. THE ELECTRONIC COTTAGE: EVERYDAY LIVING WITH YOUR PERSONAL COMPUTER IN THE 1980'S (1981, William Morrow) Practical information.

Evans, Christopher. THE MICRO MILLENIUM (1979, Washington Square Press) Entertaining, mind expanding.

Fishman, Katherine Davis. THE COMPUTER ESTABLISHMENT (1981, Harper and Row) Inside look at industry.

Frates, Jeffery, and William Moldrup. COMPUTERS AND LIFE: AN INTEGRATED APPROACH (1983, Prentice-Hall).

Grady, M. Tim, and Jane Gawronski. COMPUTERS IN CURRICULUM AND INSTRUCTION (1983, ASCD) Excellent overview of major issues, good resource list.

Graham, Neil. THE MIND TOOL (1983, West Pub. Co.) Comprehensive, suitable for HS computer courses.

Harper, Dennis, and James Stewart. RUN: COMPUTER EDUCATION (1983, Brooks/Cole Pub.) Excellent wide ranging collection of articles that are relevant to all facets of computer education.

Huntington, John. COMPUTER ASSISTED INSTRUCTION USING BASIC (1979, Educational Technology Pub.).

Joiner, Lee Marvin. MICROCOMPUTERS IN EDUCATION: A NON-TECHNICAL GUIDE TO INSTRUCTIONAL AND SCHOOL MANAGEMENT APPROACHES (1982, Learning Publications, Holmes Beach, Fla.) Micros in schools.

Kent, Ernest. THE BRAINS OF MEN AND MACHINES (1981, BYTE/McGraw-Hill) Excellent comparison treatment.

- Lathrop, Ann, and Bobbt Goodson. COURSEWARE IN THE CLASSROOM (1983, Addison Wesley) Organize, evaluate.
- Lewis, William. PROBLEM SOLVING PRINCIPLES OF PROGRAMMERS: APPLIED LOGIC, PSYCHOLOGY, AND GRIT (1980, Hayden) Lyrical treatment that uses brainteasers, algorithmic design, debugging...
- Leuhrman, Arthur, and II. Peckham. APPLE PASCAL: A HANDS-ON APPROACH (1981, McGraw-Hill)
- McCorduck, Pamela. MACHINES WHO THINK (1979, Freeman) History of AI.
- McDougall, Anne, and Tony Adams. LEARNING LOGO ON THE APPLE (1982, Prentice-Hall, Australia)
- Pattis, Richard. KAREL, THE ROBOT: A GENTLE INTRODUCTION TO THE ART OF PROGRAMMING (1981, Wiley).
- Poirot, James. COMPUTERS AND EDUCATION (1980, Sterling Swift) Interesting introduction.
- Rodenstein, Judith, and Lambert, Roger (eds). MICROCOMPUTERS: APPLICATIONS IN VOCATIONAL EDUCATION (1983, U. of Wisc.-Madison).
- Rogers, Jean. AN INTRODUCTION TO COMPUTERS AND COMPUTING (1981, ICCE/UO) HS course outline.
- Spencer, Donald. AN INTRODUCTION TO COMPUTERS: DEVELOPING COMPUTER LITERACY (1983, Merrill)
- Smith, Robert Ellis. PRIVACY: HOW TO PROTECT WHAT'S LEFT OF IT (1979, Anchor Press) Computer privacy.
- Taylor, Robert (ed). THE COMPUTER IN THE SCHOOL: TUTOR, TOOL, TUTEE (1980, Teachers College Press) An excellent collection of papers from seminal scholars in computers in education.
- Thomas, James. MICROCOMPUTERS IN THE SCHOOLS (1981, Onyx Press, Phoenix) An excellent collection of articles on selection, trends, curricular applications, issues. Useful list of resources.
- Toeffler, THE THIRD WAVE (1980, Morrow) focus on social implications; written for the general reader.
- Waite, Michell. COMPUTER GRAPHICS PRIMER (1979, Howard Sams Co, Indianapolis) Video graphics.
- Weizenbaum, Joseph. COMPUTER POWER AND HUMAN REASON (1976, Freeman) Ethical/social issues.

COMPUTING MAGAZINES

The following periodical list contains addresses and subscription rates for publications addressing educational applications of computers. The list is by no means all-inclusive. Publications concerned primarily with elementary and secondary education have for the most part not been included. New periodicals are appearing at an epidemic rate. Over 80 "computing" magazines are being published. In a recent three month period 26 new "computer magazines" came on the market. Cute titles and slick advertising often hide poor journalism. As with all areas of computer consumerism, CAVEAT EMPTOR (let the buyer beware).

ACM

1133 Avenue of the Americas
New York, NY 10036
Quarterly, \$10/yr for members

Educational Computer
P.O. Box 535
Cupertino, CA 95015
Bi-monthly, \$15/year

AEDS

1201 Sixteenth Street, N.W.
Washington, DC 20036
Monitor, \$22/6 issues
Journal, \$25/4 issues
Bulletin, \$7/10 issues

Educational Technology
140 Sylvan Avenue
Englewood Cliffs, NJ 07632
Monthly, \$49/year

Computers and Education
Pergamon Press, Maxwell House
Fairview Park, Elmsford, NY 10523
Quarterly, \$40/year for individuals

Electronic Learning
902 Sylvan Avenue
Englewood Cliffs, NJ 07632
8 issues/year, \$17/year

Computers in the Classroom
3 Carlaw Avenue
Toronto, ON M4M 9Z9
10 issues/year, \$15/year

Instructional Innovator
1126 16th Street N.W.
Washington, DC 20036
Monthly, \$18/year

Creative Computing
39 E. Hanover Avenue
Morris Plains, NJ 07950
Monthly, \$24.97/year

T.H.E. Journal
P.O. Box 992
Action, MA 01720
Bi-monthly, \$15/year

Creative Computing Buyer's Guides
39 E. Hanover Avenue
Morris Plains, NJ 07950
Two per year, \$3.95 each

Software Evaluation Form

Reviewer's Name: _____ Date of Review: _____

Address/Phone: _____ () _____

Program Title _____ Medium: _____ 5" disk; _____ 8" disk;
_____ cartridge; _____ tape

Package Title _____ Copyright Date (if any) _____

Microcomputer (brand, model, memory) _____

Necessary Hardware _____ Necessary Software _____

Producer _____ Author(s) _____

Back-up Copy Policy _____ Cost _____

PART 1

Program Overview and Description

1. Subject area and specific topic _____
2. Prerequisite skills necessary _____
3. Appropriate grade level (circle) 1 2 3 4 5 6 7 8 9 10 11 12 college
4. Type of program (check one or more)

☐ Simulation	☐ Testing
☐ Educational Game	☐ Classroom Management
☐ Drill and Practice	☐ Other (specify) _____
☐ Tutorial	_____
☐ Problem Solving	☐ Remediation
☐ Authoring System	☐ Enrichment
5. Appropriate group instructional size: _____ individual _____ small group _____ class
6. Is this program an appropriate instructional use of the computer? _____
7. Briefly list the program's objectives. Are they clearly stated in the program or in the documentation? Are they educationally valuable? Are they achieved?

8. Briefly describe the program. Mention any special strengths or weaknesses.

BEST COPY AVAILABLE

PART 2

Evaluation Checklist

Please check Yes, No, or Not Applicable for each question below. To add information, or to clarify an answer, use "Comments" at the end of each section.

Yes	No	N/A	EDUCATIONAL CONTENT
_____	_____	_____	1. Is the program content accurate?
_____	_____	_____	2. Is the program content appropriate for intended users?
_____	_____	_____	3. Is the difficulty level consistent for material, interest, and vocabulary?
_____	_____	_____	4. Is the program content free of racial, sexual, or political bias?

Comments: _____

Yes	No	N/A	PRESENTATION
_____	_____	_____	1. Is the program free of technical problems?
_____	_____	_____	2. Are the instructions clear?
_____	_____	_____	3. Is the curriculum material logically presented and well organized?
_____	_____	_____	4. Do graphics, sound, and color, if used, enhance the instructional presentation?
_____	_____	_____	5. Is the frame display clear and easy to read?

Comments: _____

Yes	No	N/A	INTERACTION
_____	_____	_____	1. Is the feedback effective and appropriate?
_____	_____	_____	2. Do cues and prompts help students to answer questions correctly?
_____	_____	_____	3. Can students access the program "menu" for help or to change activities?
_____	_____	_____	4. Can students control the pace and sequence of the program?
_____	_____	_____	5. Are there safeguards against students "bombing" the program by erroneous inputs?

Comments: _____

Yes	No	N/A	TEACHER USE
_____	_____	_____	1. Is record-keeping possible (within the program or through documentation worksheets)?
_____	_____	_____	2. Does teacher have to monitor student use?
_____	_____	_____	3. Can teacher modify the program?
_____	_____	_____	4. Is the documentation clear and comprehensive?

Comments: _____

PART 3

Overall Evaluation

CHECK ONE.

- ☐ Excellent program. Recommend without hesitation.
☐ Pretty good program. Consider purchase.

- ☐ Fair. But might want to wait for something better.
☐ Not useful. Do not recommend purchase.

Vocational Education Software Evaluation (User's Guide)

PURPOSE

This software evaluation instrument was designed to help vocational teachers identify and select quality computer programs with application in vocational education. You can make a contribution to your profession by using this instrument to evaluate a computer program you are currently using. While most of the items in the instrument are self-explanatory the following instructions will help you complete the instrument.

DESCRIPTIVE

Vocational Subject Area:

Fill in the vocational subject area or areas where this computer program has application. If possible choose from the following list.

Agricultural Educ.	Business Educ.
Ag. Economics	Bookkeeping/Accounting
Ag. Mechanics	Clerical/Secretarial
Animal Science	Keyboarding
Leadership	Marketing/Distributive Educ.
Plant Science	
Soil Science	Forestry
Health Services	Home Economics Educ.
	Child Care Services
Industrial Educ.	Clothing
Electronics	Food Service
Graphics/Drafting	Individual and Family
Metals	Resource Management
Power Mechanics	Institution Management
Woods/Construction	Nutrition and Foods
	Service Occupations

Grade Levels:

Bracket the grade level zone that shows all of the grades this program could be used in. For example a computerized drafting program might be used in grades 9-C.C. (Community College) shown as follows:

79 K 1 2 3 4 5 6 7 8 [9 10 11 12 C.C.]

REQUIRED HARDWARE

Operating System:

Unfortunately not all software is compatible with all computer hardware, therefore it is especially important that you indicate what system a computer program will operate on. In this space fill in the machine the program is intended to operate on. For example: Apple IIe; IBM Personal Computer; or Radio Shack TRS III.

Required Peripherals:

Check only those peripherals required to operate the computer program you are evaluating.

CONTENT & USABILITY

For each of the items in the Content and Usability sections circle the number that represents the level to which each item is satisfied.

Only use NA (not applicable) when an item is wholly inappropriate for the program you are evaluating.

Please use the comments section to indicate major strengths and weaknesses.

This document was developed pursuant to a grant from the Oregon Department of Education. However, the opinions expressed herein do not necessarily reflect the position or policies of the Oregon Department of Education, and no official endorsement should be inferred.

1983

Vocational Education Software Evaluation

DESCRIPTIVE

Program Name/Files: _____

Author/Vendor: _____

Cost: _____ ☐ Copywritten ☐ Public Domain

Type of Program: ☐ CAI ☐ Utility

Vendor Support: ☐ Yes ☐ No Updates: ☐ Yes ☐ No

Date of Review: _____ Reviewer: _____

Vocational Subject Area(s): _____

Grade Levels: Bracket zone

K 1 2 3 4 5 6 7 8 9 10 11 12 C.C.

Estimated Execution Time: _____ Minutes

REQUIRED HARDWARE

Operating System: _____ No. of Disk Drives: _____

Required Memory: _____

Required Peripherals: ☐ Printer ☐ Color Monitor

☐ Plotter ☐ Paddle/ Joystick ☐ Modem

☐ Voice Synthesizer

CONTENT

Low High

NA 1 2 3 4 5 Content Accuracy

NA 1 2 3 4 5 Compatibility with Course Content/Strategies

NA 1 2 3 4 5 Presentation of Technical Information

NA 1 2 3 4 5 Presentation of Career Information

NA 1 2 3 4 5 Free of Stereotyping

Comments:

USABILITY

Low High

NA 1 2 3 4 5 Quality of Written Documentation

NA 1 2 3 4 5 Quality of Directions within Program

NA 1 2 3 4 5 Quality of Screen Format

NA 1 2 3 4 5 Level of Student Interaction

NA 1 2 3 4 5 Amount of Keyboarding Required

Comments:

FACTOR WEIGHT CHART

DIRECTIONS: The chart (right) lists the 12 factors that educators are most often concerned with when selecting a microcomputer. Read down the list of factors, and for each one you want to weight, circle the number which best expresses how important that factor is in terms of your goals. (Follow the same procedure for any other factors you want to add to the list)

	NOT IMPORTANT SOMEWHAT IMPORTANT IMPORTANT VERY IMPORTANT EXTREMELY IMPORTANT				
COST	1	2	3	4	5
MEMORY	1	2	3	4	5
SOFTWARE	1	2	3	4	5
PERIPHERALS	1	2	3	4	5
GRAPHICS	1	2	3	4	5
SCREEN DISPLAY	1	2	3	4	5
KEYBOARD	1	2	3	4	5
SOUND/MUSIC	1	2	3	4	5
COLOR	1	2	3	4	5
SYSTEM EXPANSION	1	2	3	4	5
PROGRAMMING LANGUAGES	1	2	3	4	5
SERVICE/WARRANTY	1	2	3	4	5

MICROCOMPUTER EVALUATION

DIRECTIONS: To find out which microcomputers seem best suited for your particular applications and objectives, follow the steps listed below.

1. Write the names of the microcomputers you want to evaluate across the top of this form.
2. For each factor that you've assigned a weight to, write the weight (1-5) in the blank labelled FW (Factor Weight). Be sure to write each factor weight under each machine being evaluated.
3. Now, rate each machine according to how well it supports each of the factors being considered. Use this rating system: 1 = Poor; 2 = Fair; 3 = Good; 4 = very good; 5 = Excellent.

4. Multiply your FW by your MR and write the product in the space to the right of the equals sign.
5. Add up your list of products and write the sum in the space marked Grand Total. The micro with the highest Grand Total could just be the one that's right for you!

	MICRO _____	MICRO _____	MICRO _____	MICRO _____	MICRO _____
COST	FW MR	FW MR	FW MR	FW MR	FW MR
MEMORY	FW MR	FW MR	FW MR	FW MR	FW MR
SOFTWARE	FW MR	FW MR	FW MR	FW MR	FW MR
PERIPHERALS	FW MR	FW MR	FW MR	FW MR	FW MR
GRAPHICS	FW MR	FW MR	FW MR	FW MR	FW MR
SCREEN DISPLAY	FW MR	FW MR	FW MR	FW MR	FW MR
KEYBOARD	FW MR	FW MR	FW MR	FW MR	FW MR
SOUND/MUSIC	FW MR	FW MR	FW MR	FW MR	FW MR
COLOR	FW MR	FW MR	FW MR	FW MR	FW MR
SYSTEM EXPANSION	FW MR	FW MR	FW MR	FW MR	FW MR
PROGRAMMING LANG.	FW MR	FW MR	FW MR	FW MR	FW MR
SERVICE/WARRANTY	FW MR	FW MR	FW MR	FW MR	FW MR
GRAND TOTAL					

UNDERSTANDING THE FACTORS

1. COST

OPTIONS: FROM AS LITTLE AS A few hundred dollars to a few thousand. Typically, the list price includes the keyboard, microprocessor, and the minimum available Random Access Memory (RAM). A monitor may or may not be included.

NOTE: When comparing costs of various machines, remember to be sure to compare machines with similar configurations and capabilities.

2. MEMORY

OPTIONS: MEMORY FOR VARIOUS microcomputers can range from a low of 1K (roughly 1000 characters of information) to 256K. Most commonly, however, memory ranges from 16K to 48K.

REASONS TO CONSIDER: GENERALLY, the more memory the better. A larger amount of memory is important:

- To run or write large and sophisticated programs
- For word processing
- To accommodate certain peripherals, such as disk drives or printers

3. SOFTWARE

OPTIONS: SOFTWARE IS AVAILABLE to suit a variety of educational needs. However, there are wide variations in its quality as well as in its availability for a particular machine.

REASONS TO CONSIDER: TO USE the computer as a tool for:

- Instruction at all levels
- Record-keeping
- Word-processing

4. PERIPHERALS

OPTIONS: PRINTERS, DISK DRIVES, joy sticks, light pens, paddles, modems

REASONS TO CONSIDER:

- **Printers:** To make paper copies of program listings, records, or manuscripts; useful for most educational applications
- **Disk Drives:** For large storage capacity and speed for loading and saving information; preferable for extensive programming, word processing, administrative tasks
- **Light Pens, Joy Sticks, Game Paddles:** For users to interact with the

computer without using a keyboard; useful for young students

- **Modem:** To communicate with other computers over the phone lines

5. GRAPHICS

OPTIONS: THE GREATER THE NUMBER of dots or blocks on the screen that can be used to display a graphic, the higher the resolution (quality of detail).

REASONS TO CONSIDER:

- To explain a concept
- To illustrate an idea
- To use as a creative tool for art and programming students
- For administrative purposes
- To enhance a program's appeal

6. SCREEN DISPLAY

OPTIONS: LINE WIDTH RANGES from 20 to 80 characters; line length ranges from 16 to 32 lines; lower case letters are not an option on all micros.

REASONS TO CONSIDER:

- For word processing
- For maximum flexibility in formatting text on the screen
- For displaying upper and lower case letters in language arts instruction

7. KEYBOARD

OPTIONS: (1) A TYPEWRITER-LIKE unit with keys you depress; (2) A flat (membrane) unit with keys drawn on a smooth surface that you touch

REASONS TO CONSIDER:

- **Flat Keyboard**—For young children
- **Standard Keyboard**—To use the computer as a typing tutor, word processor, or for programming

OTHER CONSIDERATIONS:

- **Function Keys** ("Return/Enter"; "Erase/Back Space"): Are they large, recognizable and easily found?
- **Number Keypad:** Handy for a lot of calculating activities

8. SOUND/MUSIC

OPTIONS: SOME MICROS DO NOT have sound/music capability; others have it built in; still others can be made to produce sound at an additional cost

REASONS TO CONSIDER:

- To reinforce, focus, or prompt students
- For computer-assisted music instruction

9. COLOR

OPTIONS: MACHINES CAPABLE OF color display offer from four to sixteen different colors

REASONS TO CONSIDER:

- For highlighting, contrasting, or possibly increasing the appeal of a program
- For art students

10. SYSTEM EXPANSION

REASONS TO CONSIDER:

- To connect a series of micros together with a disk-sharing system
- To subscribe to an information network, such as CompuServe or The Source
- To turn your micro into a terminal to communicate with other micros, a mini, or main frame
- For interactive videotape or videodisc connections

11. LANGUAGES

REASONS TO CONSIDER:

- **BASIC:** Most common microcomputer language; useful for general purpose programming
- **FORTRAN or COBOL:** For business or computer science students, or for creating some administrative programs
- **PASCAL:** Useful for more sophisticated programming by computer science students
- **AUTHORING LANGUAGES:** For non-programming teachers who want to write their own programs
- **LOGO:** Particularly good for young children; highly interactive and instantly useable.

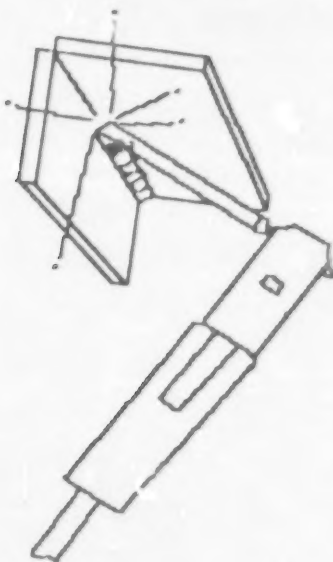
NOTE: ALL BASICs ARE NOT THE same. If your plans include programming, compare the various BASICs available to find the one that you prefer.

12. SERVICE

OPTIONS: WHILE MOST MANUFACTURERS offer a 90-day parts and labor warranty, there are variations in service plans to be arranged with your local dealer. For some practical tips on how to select a dealer, see LeRoy Finkel's article on page 26 of this issue.

WHAT IS IT?

The OSU Clearinghouse for Computer Applications in Vocational Education provides a central clearinghouse for the coordination of microcomputer use in vocational education. The dramatic increase in the use of microcomputers both at work and in schools has created a special need for the use of microcomputers in vocational education programs. The Clearinghouse can help vocational teachers meet these needs.



WHAT SERVICES DOES IT OFFER?

- Coordinate the review and evaluation of computer software with application in all areas of vocational education.
- Disseminate educational software evaluations of computer programs with application in all areas of vocational education.
- Disseminate public domain (non-copywritten) computer programs to vocational teachers.
- Conduct workshops and seminars to prepare teachers in the use of computers and computer software in vocational education programs.

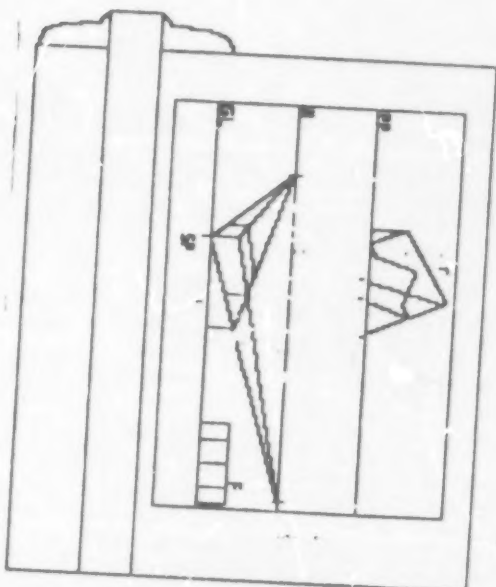
HOW CAN YOU PARTICIPATE?

If you currently use microcomputer software with application in any area of vocational education you can serve as a field evaluator for the Clearinghouse. Using the Clearinghouse Vocational Education Software Evaluation Instrument you can review software with application in vocational education.

If you are developing or adapting public domain programs with application in vocational education you can send them to the Clearinghouse and share them with other vocational teachers around the country.

You can order public domain programs from the Clearinghouse. The charge per 5 1/4" floppy disk is \$5.00 plus \$2.00 for postage and handling. The Clearinghouse now has over 30 public domain programs in many areas of vocational education.

You can arrange for us to conduct a workshop or seminar on the use of microcomputers in vocational education for your school or district.



OSU CLEARINGHOUSE FOR COMPUTER APPLICATIONS IN VOCATIONAL EDUCATION
BATCHELLER HALL 100
OREGON STATE UNIVERSITY
CORVALLIS, OR 97331

CHECK:

I would like to order:

☐

Disk 001

☐

Disk 002

☐

Disk 003

(Enclose a check for \$5.00 per disk plus \$2.00 for postage & handling.)

☐

I would like to serve as a field evaluator.

☐

I would like information on workshops/seminars offered on Computer Applications in Vocational Education.

Your Name

Address

Town/City

State/Zip

Title/Position

School

VOCATIONAL INSTRUCTOR TEACHING SKILLS PROJECT

A special thanks to those who appeared in this video production and shared some of the ways they are incorporating computers in the classroom.

TOM GILLESPIE
DRAFTING
PORTLAND COMMUNITY COLLEGE

DAVE GILLETTE
MATH DEPARTMENT
CHEMEKETA COMMUNITY COLLEGE

GARTH NELSON
FUNERAL SERVICES
MT HOOD COMMUNITY COLLEGE

TED SCHEINMAN
ECONOMICS
MT HOOD COMMUNITY COLLEGE

ART WITKOWSKI
RESPIRATORY THERAPY
MT HOOD COMMUNITY COLLEGE